

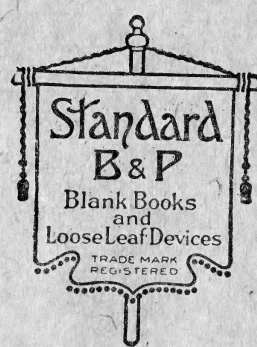
MS - Calendar

1791-2000



E. P. Kelly  
Smithsonian Inst.  
Washington.





# Standard Blank Book

No. 66 $\frac{1}{4}$

Journals 2 Columns no Units

Day Books " "

Cash Books " "

S. E. Ledgers " "

D. E. Ledgers Full Page Form no Units

Long Day Book no Units

Records with Margin Line

In 150, 200, 300 and 500 Pages

Made in U. S. A.



17291	Vernonia	H $\pm$ 3' below,	Panicle wh, styles purp	Jan. 16 Open, mostly rocky hillsides, vic. Vetas	3100-3250m.
17292	Paspalum	H	Pachis & spikes deep purp		
17293	Stipa	H	Infl. green		
17294	Aristida	H	Infl. purplish		
17295	Polypodium	H repent			
17296	Bahia	H 3-5'	Br. gr. pur, pur. ant.	lobes pale, anthers y.	
17297	Marrubium	H	Cor. light gr., anthers Cor. light pi., lobes darker lobes blue spotted in		
17298	Oxalis	H succ.	Pet. y, red-stripped		
17299	Agrostis	H	Infl. purplish		
17300	Fuchsia	H 1.5-2', woody below	Calyx & pet deep red		
17301	Coniaria	S 2-4', branches drooping	anthers gr.		
17302	Solanum	S 4-5'	Cor. gr. wh, anthers y		
17303	Gaultheria	S 1-5'	Cor. rich pi.		
17304	Myosotis	H 1-2.5'	Cor. light blue		
17305	Moss	Damp logs			
17306	Hep.	" "			
17307	Moss	" "			
17308	Moss	" "			
17309	Buddleia	S 4-8'	Cor. orange		
17310	Polygala	S 4-6'			
17311	Trerice	V	Infl. gr. wh		
17312	Meriania	S 4-6'	Pet mag, anthers y.		
17313	Solanum	S low	Cor w anthers y; fr. black		
17314	Jugia	S 3-5'	Rays wh, cor & sty. gr-w		
17315	Polypodium	H ter			
17316	Barnadesia	S 6-8'	Br. purp, Rays rich pi	Cor. light pi purp, brown dist, styles pi	
17317	Rubus	S 2-4', branches elevated	Pet. light pi; glabrous petioles & leaf bright red		
17318	Salvia	S 3-6'	Calyx gr., cor. bright red		
17319	Salvia	S 5-10'	Calyx purpl, cor. bright red, lustrous		
17320	Mucuna	S 8-15'	Cal. fl. purp. gr. wh		
17321	Stevia	S 2-3'	Cor. light gr., anthers lobes pi to wh		
17322	Orchid	H ter.	Sep y-g; petals light y		
17323	Comp.	S 8-10'	Rays bright y, florets darker		



- |       |  |                                       |   |
|-------|--|---------------------------------------|---|
| 17324 | <i>Dryopteris</i>                      | H                                     |   |
| 17325 | <i>Laelia</i>                          | H <sup>tr?</sup>                      | See notes   |
| 17326 | <i>Vallia</i>                          | S 10-12'                              | Calyc. gr. pi., pet. rich pi.                           |
| 17327 | <i>Solanum</i>                         | S 2-4'                                | Cor. pure wh, anthers y.                                |
| 17328 | <i>Castilleja</i>                      | S 1-3'                                | Br. y. or red, dist.                                    |
| 17329 | Grass                                  | H                                     | Heads purplish.   |
| 17330 | <i>Vigularia</i>                       | H 1-2', branches along                | Cor. rich pi. out, pale in                              |
| 17331 | <i>Echeveria</i>                       | H succ.                               | Pet. y.   |
| 17332 | <i>Dryopteris</i>                      | H                                     |   |
| 17333 | <i>Alaphocarpum</i><br><i>Vigilana</i> | H                                     | G   |
| 17334 | <i>Vigularia</i>                       | H                                     | Cor. pale pi.   |
| 17335 | <i>Fuchsia</i>                         | S                                     | Sep. & pet. pi.-red.                                    |
| 17336 | <i>Thibaudia</i>                       | S 1-2'                                | Calyc. deep gr., Cor. rich red, pale apex               |
| 17337 | <i>Cestrum</i>                         | S 8-12'                               | Cor. green  |
| 17338 | <i>Calceolaria</i>                     | H 1-1.5'                              | Cor. y. glaucous  |
| 17339 | <i>Chaetopappus</i>                    | H                                     | See notes   |
| 17340 | <i>Verbena</i>                         | H coarse<br>4-6'                      | Cor. purple <sup>richly var.</sup> v. <i>littoralis</i> |
| 17341 | <i>Guaphalium</i>                      | H 1-1.5' <sup>rich</sup><br>capitulum | Heads gr. wh.   |
| 17342 | <i>Calceolaria</i>                     | H ± 1.5                               | Cor. y; pl. glaucous                                    |
| 17343 | <i>Eupatorium</i>                      | H 2-3'                                | Cor. gr. wh., bracts pi.-purp.                          |
| 17344 | <i>Myrsotis</i>                        | Herb coarse                           | Cor. wh.  |
| 17345 | <i>Polypodium</i>                      | Herb ant                              |   |
| 17346 | <i>Peperomia</i>                       | H epiphyt.                            |   |
| 17347 | Umbellif.                              | S 2-4' br. stems purplish<br>along    | Pet. y-g, anthers wh.                                   |
| 17348 | <i>Calceolaria</i>                     | S 5-8'                                | Cor. y.   |
| 17349 | <i>Cyrtopteris</i>                     | H                                     | (Stam. green for, deep purp. dist.)                     |
| 17350 | <i>Cleome</i>                          | S 8-10'                               |   |
| 17351 | <i>Solanum</i><br><i>laureola</i>      | S 6-8'                                | Petals, anthers y.                                      |
| 17352 | <i>Berberis</i>                        | S 8-10'                               | Fls. purplish   |
| 17353 | <i>Heisteria</i>                       | H                                     | Heads golden y.   |
| 17354 | <i>Disymbrium</i>                      | H                                     | Pet. light pi.  |
| 17355 | <i>Amaranthus</i>                      | H                                     | Cor. cream-wh.  |
| 17356 | <i>Polypodium</i>                      | H                                     |   |

Jan. 16 Open, mostly rocky hillside, Vico Vetes 3100-3250m.

thickets along stream

3100-3200m

- |        |  |
|--------|--|
| 173871 |  |
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| 173899 |  |
| 173900 |  |



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|-------|------------------------------|--------------------------------|--------------------------------------|
| 17357 | <i>Pellaea</i>               | H stems purple                 |                                      |
| 17358 | <i>Montia</i>                | H prostrate<br>H knotted       | Pet. gr. wh.                         |
| 17359 | Grass                        | H weak                         |                                      |
| 17360 | <i>Mimulus</i>               | H "                            | Cor. y.                              |
| 17361 | <i>Fuchsia "acampanella"</i> | S 3-4', branches<br>S dwarfing | Sepals, & Pet. red                   |
| 17362 | <i>Salvia</i>                | H                              | Cor. bright pi.                      |
| 17363 | <i>Melilotus "cartilago"</i> | H prostrate                    | Pet. y                               |
| 17364 | <i>Digitalis</i>             | H coarse                       | Cor. wh.                             |
| 17365 | Hep                          | on wet banks                   |                                      |
| 17366 | "                            | on wet logs                    |                                      |
| 17367 | Moss                         | " " "                          |                                      |
| 17368 | Lichen                       | " " "                          |                                      |
| 17369 | Moss                         | " banks                        |                                      |
| 17370 | "                            | " "                            |                                      |
| 17371 | "                            | " dec. logs.                   |                                      |
| 17372 | <i>Marchantia</i>            | " wet rocks                    |                                      |
| 17373 | <i>Passiflora mixta</i>      | V woody                        | See notes                            |
| 17374 | <i>Bomarea</i>               | V herb                         | See notes                            |
| 17375 | <i>Mutisia</i>               | V woody                        | Ray bright red, stam. red & purple.  |
| 17376 | <i>Cardamine</i>             | H                              | Pet. wh.                             |
| 17377 | <i>Phoradendron</i>          | S epip.                        | Plant bright gr.                     |
| 17378 | <i>Salvia</i>                | H 3-4' semi-prostrate          | Cor. rich pi., w. at base            |
| 17379 | <i>Eupatorium</i>            | H 2-3'                         | Cor. gr. w., lobes & sty. bright pi. |
| 17380 | <i>Oxalis</i>                | H 1-3'                         | Pet. y, sepals red-purple            |
| 17381 | <i>Salvia</i>                | H                              | Calyx deep purp., Cor. rich pi.      |
| 17382 | <i>Galium</i>                | V herb                         | Fr. gr.                              |
| 17383 | <i>Loumaria</i>              | H                              |                                      |
| 17384 | <i>Tresine</i>               | V herb                         |                                      |
| 17385 | <i>Stipa</i>                 | H                              | Inf. purple                          |
| 17386 | <i>Fuchsia</i>               | S 2-3'                         | Calyx tub. about, pi. w. pet. pi-red |
| 17387 | <i>Crastium</i>              | V herb                         | Pet. wh.                             |
| 17388 | <i>Solanum</i>               | S low                          | Cor. w. anthers y                    |
| 17389 | <i>Solanum</i>               | S 3-6'                         | Cor. w. anthers y                    |

Jan. 16	Flushets along stream	Velas	3100-3200m.	17357
				17358
			1	17359
			1	17360
				17361
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				17372
				17373
			2	17374
				17375
				17376
				17377
			2	17378
			1	17379
				17380
				17381
				17382
			1	17383
				17384
			1	17385
				17386
				17387
				17388
				17389



17390	Marchantia	on wet rocks	
17391	Moss	on dec. logs	
17392	Hep.	" wet rocks	
17393	? alga	" " "	
17394	Moss	" dec. logs.	
17395	Calceolaria	S low	Cor. y
17396	Oxalis	H succ	Pet. y, red-striated
17397	Barbarea	S 3-4'	Pet. or-y.
17398	Strophia	H ± woody	Cor. deep pi., lobes o styles pale
17399	Eschveria	H very succ.	
17400	Vicia	H herb	Sp. deep blue, wings light bl., heat nearly wh
17401	Vicia	V herb	Pet. pale blue.
17402	Polypodium	H br. very stiff	
17403	Comp. "Mitraria"	H	Rays bright y, fl. darker
17404	Aster	H	Rays deep pi., fl. gr.-y
17405	Bidens	H	Rays bright y
17406	Geranium	H	Pet. deep pi., pale at base
17407	Grass	H	infl. deep purple
17408	Solanum	H	Cor. pink to red, wh in
17409	Plantago	H	
17410	Arnica	H viscous	Rays rich purp., fl. y-g
17411	Baccharis	S 4-6'	Pappus gr.-wh
17412	Jamesonia	H	
17413	Plantago	H caespitose	
17414	Gleuim	H matted	Dr. green
17415	Grass	H	
17416	Rumex	H	fls. br.-red.
17417	Moss	On soil	
17418	Polypodium	H	
17419	Peperomia	H creep?	
17420	Moumnia	S 1-2'	Pet. deep blue
17421	Geranium	H	Pet. rich pi.
17422	Espeletia	H	Rays y, fl. buds darker

Jan. 16 Tunchete along stream  
open, mostly rocky hillside, Vic Vetas 3100-3250m

open hillside, edge of Paramo de Vetas 3400-3700m.

Paramo de Vetas 3400-3700m.



17423	<i>Sisyrinchium</i>	H	fl. blackish
17424	<i>Asplenium</i>	H	
17425	<i>Drymaria</i>	V herb	Pet. wh.
17426	<i>Myrtus</i>	S 5-8'	Pet. & fil. wh. anthers light
17427	<i>Pernettya</i>	S 1'	Calyx light gr., cor. wh.
17428	<i>Cornif.</i>	H	Br. deep purpl. 'rays' <sup>yellow</sup>
17429	<i>Eupatorium</i>	H	cor. gr. wh. <sup>lower</sup> & style wh. to filices
17430	<i>Polylepia</i>	S 3-5'	Pet. wh.
17431	<i>Guaphalium</i>	H	Heads gr.-y
17432	<i>Vernonia</i>	S 3-4'	Br. deep purpl.; pap. wh.
17433	<i>Senecio</i> Engelm.	S low 1-1.5'	Young parts gr.
17434	Moss	On soil	
17435	Alga	In water	
17436	Moss	On rock walls	
17437	<i>Heliotropium peruvianum</i>	herb open soil	
17438	<i>Blechnum</i>	H	
17439	<i>Cheilanthes</i>	H	
17440	<i>Pellaea cordata</i>	V herb	
17441	<i>Sergania</i>	V ± woody	
17442	<i>Epidendrum</i>	H ter.	See notes.
17443	<i>Asplenium</i>	H	
17444	<i>Euphorbia</i>	H	Br. gr.
17445	<i>Coccolobium</i>	H weak	fr. bright blue
17446	<i>Tradescantia</i>	H succ.	fls. gr. wh.
17447	<i>Nueoria</i>	H 2-3' ± woody	fruits, calyx deep red
17448	<i>Meriania</i>	S	Pet. deep mag.
17449	Rub.	H 1-2' ± woody	fr. red.
17450	<i>Castilleja</i>	H	Br. gr. prox. red dist.
17451	<i>Castilleja</i>	H	
17452	<i>Mimulus</i>	H coarse, 1-2'	Cor. y.
17453	<i>Miconia</i>	S	Pet. wh.
17454	<i>Melastoma</i>	H coarse	anthers y. <sup>not fi?</sup>
17455	<i>Centropogon</i>	V herb	Cor. fi., pale in

Jan. 16 Paramo de Vetas

3400-  
3700m.

gr. wh., fl. y-g

stream, Vetas

3100-  
3200m

19

California

just said to occur in *humilis*,  
yard, probably introduced

18

dry hillsides

17

Charta <sup>col. by M.</sup> Ramirez



17456	Comp.	H	Ray wh.
17457	Dichromena	H	Br. wh. prop
17458	?	Tree?	Fr. green, not ripe
17459	<del>Psychotria</del> <del>Lyth</del>	S <sup>6-8'</sup> decumbent bimodal	Subs. v. bright red.
17460	Lythraceae	H	Pet. lavender
17461	Cuphea	H	Pet. deep pi.
17462	Hypericum	glow low	Pet. y., st. 15-20
17463	Senecio	"	Heads y
17464	"	H	Ray lemon y, florets deep y
17465	Plantago	Hespitose	
17466	Grass	H	
17467	"	"	
17468	"	"	
17469	"	"	
17470	"	"	
17471	Senecio	glow	Heads y
17472	Werneria	Hesep.	Ray wh
17473	Polypodium	H	
17474	Lycopodium	H	
17475	Jaulsonia	H	
17476	Lycopodium	H	
17477	Polypodium	In clumps	
17478	Grass	H	Inf. purplish
17479	"	H	Inf. purplish
17480	Aquatic	H	
17481	Grass	H	
17482	Distichia	Forming clumps, leaves sharp-pointed.	
17483	<del>Chamaeli</del>	Hespitose	Pet. gr. wh.
17484	Geranium	Hespitose shrubby	Pet. deep pi.
17485	Nalemia	Hespitose	pale Cor. green
17486	Bekas	H ± woody	Ray bright y, fl. darker
17487	Chactopappus	H shrubby	Ray wh; fl. deep pi
17488	Eugenia	H ± woody, prostrate	Cor. wh.

Jan. 17 dry hillsides, Charte<sup>col. by m. Rausing</sup>

17 Paramo de Santurban

4080-  
4160m.



17489	Grass	H	
17490	Hypericum	S low compact	Pets y
17491	Arnica	H	Rays, rich purpl. fl. gr. y
17492	Castilleja	H	Cor. bright red.
17493	"	H	
17494	"	H <sup>± woody</sup>	<sup>bract</sup> deep red; cor. deep red
17495	Bartsia	H	Cor. greenish purp., fr. dent.
17496	Hypericum	S low compact	Pet. y
17497	Slachyp	H	Cor. rich pi.
17498	Elaphoglossum	H	
17499	<del>Chaetopappus</del> <del>Senecio</del>	S 2-4'	Rays wh., fl. greenish
17500	Tofieldia	S 1-2.5'	
17501	Baccharis	S low ± 1'	Pappus wh.
17502	Ancytophyllum	S 1-2.5'	Cor. wh.
17503	Senecio	S 2-3'	Fl. light y
17504	Pernettya	S low compact	Cor. wh., fr. pi. red
17505	Senecio	S low "	Elvets y, sep. light gr
17506	Cerastium	H	Fr. light gr.; pet. wh
17507	Malvastrum	H low flat on ground	Pet. pi.
17508	Azorella	H stem purplish	Pet. wh.
17509	Guaphalium	N	Heads y-g
17510	"	N	" "
17511	Olechemilla	S <sup>subshrub</sup> low compact	
17512	"	H	
17513	Senecio	S 1-2'	Elvets bright y
17514	Hypericum	S low compact	Fr. deep red
17515	"	" "	
17516	Halenia	H	Cor. <del>gr</del> light gr
17517	Calceitium	H	Elvets, gr. - y
17518	Arcytophyllum	S 2-4'	Cor wh.
17519	Stevia	H	Cor. purp., lobes pi.
17520	Senecio	H	Rays light y; fl. <del>dark</del>
17521	Halenia	H	Cor. gr. - y

Jan. 17 Paramo Santurbán

4080-  
4160m.

Pets. y; stem . 25-30

faintly <sup>faintly</sup> pi., red striped



17522	<i>Senecio</i>	Shrub
17523	"	S 1-2'
17524	<i>Baccharis</i>	S 1-2'
17525	<i>Gentiana</i>	H
17526	Lichen	Soil
17527	"	"
17528	"	"
17529	"	"
17530	Dep.	"
17531	Moss	"
17532	Lichen	"
17533	"	"
17534	Fungus	"
17535	Lichen	"
17536	Alga	Water?
17537	Moss	Soil
17538	"	"
17539	<i>Cladonia</i>	"
17540	<i>Werneria</i>	Herb
17541	"	Herb
17542	<i>Gentiana</i>	H
17543	<i>Gramin? lupinus?</i>	H forming mats
17544	Lichen	Soil
17545	"	"
17546	"	"
17547	Moss	"
17548	Lichen	"
17549	"	"
17550	<i>Werneria</i>	Herb esp.
17551	<i>Quercus?</i>	H
17552	<i>Disynanthium</i>	H
17553	<i>Corup. C. l. l.</i>	H ± woody
17554	<i>Lobelia</i>	H

Plants light y

Pappus wh.

Cor. gr, lobes pi.-blue,

Cor. clean, lobes bright

Ray wh, fl. y, br. gr. per

" bright br. green, lobes

Cor. clean, lobes bright

In 2 places

Like 17541 but basal lvs wider

Apparently y

Cor. oostyle, wh.

Cor. bright blue, pale in

Jan. 17 Paramo Santurbán

4080-4160m.

3950-4080m.

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- 17555 Comp. H  
 17556 Calceolaria S 2-4'  
 17557 Lupinus H woody  
 17558 Vaccinium S 1-6'  
 17559 Melastom. S 8-12'  
 17560 Espeletia "fragrans" "Branch 6"-6', 4-10" diam., lvs. & fls. at summit.  
 17561 Ochseria S up to 1' much  
 17562 Lichen On branches of 17561  
 17563 Diploteris S 2-3'  
 17564 Castilleja H woody  
 17565 " H  
 17566 Halenia H  
 17567 Hypericum S low compact  
 17568 Halenia H erect  
 17569 Elaphoglossum H  
 17570 Plantago H erect  
 17571 Elaphoglossum H erect  
 17572 Veronica H erect  
 17573 Grass H  
 17574 Grass H forming dense mats  
 17575 Jamesonia H  
 17576 Distichlis H forming dense mats  
 17577 Senecio S 8-15'  
 17578 Berberis S 3-6'  
 17579 Cestrum S 4-6'  
 17580 Pereskia S low comp.  
 17581 Oreobates S low  
 17582 Orchid H on epip?  
 17583 Proustia S slender glaucous 4-12'  
 17584 Othocaulis H  
 17585 Coccobolus S 4-8'  
 17586 Thibaudia S 6-10'  
 17587 Comp.

- Rays gr. - wh  
 Cor. bright y  
 St. lilac, pale at center  
 Cor. reddish pi. fr. with blaw  
 Pet. pi. anthers gr.  
 Pet. yellowish  
 Br. purplish, rays pale pi  
 See notes  
 " "  
 Cor. gray green  
 Pet. bright y  
 Cor. light gr., open wh.  
 Anthers light gr.  
 Lobes light bl, darker striped  
 tips of upper leaves  
 very sharp  
 Rays y, florets darker  
 Pet. bright y  
 Cor. pi. purp., lobes gr.  
 Cor. pure wh  
 Sep. pinkish red, pet. apparently  
 Tube gr., all parts bright y  
 Cor. light pi, stam. red pi  
 Per. rich blue  
 Fruit rose-red  
 Cor. bright red, paler lobes  
 Rays bright y

Jan. 17 Paramo Santurban

work lilac

edge of paramo,

edge of paramo

3950  
-4080m.3500-  
3900m.



- |       |  |   |  |
|-------|--|---|--|
| 17588 | Grass                                      | H in clumps                                       | Inf. deep pi.  |
| 17589 | Melastom.                                  | H 1-1.5' <sup>woody at base</sup>                 | Pet. with bright y   |
| 17590 | Guaphalium                                 | H caespit.  | Inf. light y. wh.  |
| 17591 | Werneria                                   | H " "   | Ray wh.  |
| 17592 | Lichen                                     | On branches                                       | Blackish   |
| 17593 | Bidens                                     | H   | Ray bright y. fl. darker                                   |
| 17594 | Plantago                                   | H caespit.  |  |
| 17595 | Guaphalium                                 | H in clumps                                       | Heads yg.  |
| 17596 | <del>Lichen</del><br><del>Camissonia</del> | H On dry twigs                                    | <del>Sp. y.</del>  |
| 17597 | Geranium                                   | H <sup>perennially</sup><br>H <sup>repeated</sup> | Pet. deep pi.  |
| 17598 | Stevia                                     | H <sup>perennially</sup><br>H <sup>repeated</sup> | Cor. styles pure wh.                                       |
| 17599 | Cryptophyllum                              | St. prostrate                                     | Cor. wh, pi. tinged out                                    |
| 17600 | Borulesia                                  | H   | Pet. wh.   |
| 17601 | Valeriana                                  | H in clumps                                       | Bracts, pi. cor. pure wh.                                  |
| 17602 | Stevia                                     | St. 1 ft.   | Cor. styles wh.  |
| 17603 | Eschschia                                  | H 1 ft.   | Ray bright y, heads dark                                   |
| 17604 | Valeriana                                  | H caespit.  | Cor. light y.  |
| 17605 | Lycopodium                                 | H repent.   |  |
| 17606 | Eupatorium                                 | H woody below                                     | Cor. gr. wh., lobes styles                                 |
| 17607 | Calceolaria                                | S 1.5-3'  | Cor. bright y  |
| 17608 | Senecio                                    | S 2-5'  | Heads light y  |
| 17609 | Vaccinium                                  | S <del>3-4'</del> <sup>4-6'</sup>                 | Cor. rich pi.  |
| 17610 | Verbesina                                  | S 4-6'  | Ray fl. H  |
| 17611 | Castilleja                                 | S 1.5-2', slender                                 | Up. bracts, bright red dist. calyx red out, y in; Cor. red |
| 17612 | Gnaphalium                                 | S low compact                                     | Calyx deep pi.   |
| 17613 | Polypodium                                 | H repent.   |  |
| 17614 | Polypodium hypoleucum                      | VH  | Frond light red  |
| 17615 | Vicia                                      | VH  | Pet. light bl., paler prox.                                |
| 17616 | Horaceum                                   | H   | Bract black-purple   |
| 17617 | Phleum                                     | H   | Cor. gr. wh., lobes pink                                   |
| 17618 | Grass                                      | H   | Inf. purplish  |
| 17619 | "  | H coarse  | Inf. pi. when young  |
| 17620 | Werneria                                   | H caesp.  | Ray wh. n. l. y.   |

Jan. 17 <sup>edge of paramo</sup> Paramo de Santurba

3500 -  
3900 m.

Paramo de Santurba

3950  
-4080 m.

18 Paramo de Mogotocoro

3900 -  
3800 m.

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|-------|------------------------------|------------------------------|-------------------------------------|
| 17621 | <i>Alchemilla</i>            | H <sup>+</sup> woody, matted | Pet. gr. y.                         |
| 17622 | <i>Eupetia</i>               | H 6"                         | Rasp y, H. dark greenish            |
| 17623 | <i>Mercurialis</i>           | H                            | Heads cr.-y                         |
| 17624 | <i>Elaphoglossum</i>         | H rep.                       |                                     |
| 17625 | <i>Castilleja</i>            | H <sup>+</sup> woody         | Calyx bright red, cor. y            |
| 17626 | <i>Geranium</i>              | H <sup>+</sup> woody         | Pet. rich pi                        |
| 17627 | <i>Bartsia</i>               | H                            | Cor. deep pi                        |
| 17628 | <i>Osteonema</i>             | S 3-6'                       | Pet. cream-wh.                      |
| 17629 | <i>Diphysophum</i>           | S 1-2'                       |                                     |
| 17630 | <i>Plantago "glabra"</i>     | H <sup>+</sup> erect         |                                     |
| 17631 | <i>Alchemilla</i>            | H <sup>+</sup> erect         | Pet. y-gr.                          |
| 17632 | <i>Camp.</i>                 | H                            |                                     |
| 17633 | <i>Cyrtopteris</i>           | H                            |                                     |
| 17634 | <i>Arum</i>                  | H                            | Rasp rich pump. cor. gr.-wh.        |
| 17635 | <i>Elaphoglossum</i>         | H rep.                       |                                     |
| 17636 | <i>Aster</i>                 | H <sup>+</sup> erect         |                                     |
| 17637 | <i>Bernardia</i>             | S low                        | Trt. pi.                            |
| 17638 | <i>Nicotiana</i>             | S 3-8'                       | Pet. wh., anthers gr.               |
| 17639 | <i>Carex</i>                 | H                            | Perigynia black                     |
| 17640 | <i>Melastom</i>              | S 8-12'                      |                                     |
| 17641 | <i>Werneria</i>              | H <sup>+</sup> erect         | Rasp wh., cor. gr. y                |
| 17642 | <i>Orchid</i>                | H <sup>+</sup> erect         | Tube light gr., sep. parts bright y |
| 17643 | <i>Viola</i>                 | N                            | Pet. bright bl, often paler         |
| 17644 | <i>Alchemilla glabra</i>     | H <sup>+</sup> erect         |                                     |
| 17645 | <i>Myrtus?</i>               | slow matted                  |                                     |
| 17646 | <i>Epilobium</i>             | H                            | Pet. pump                           |
| 17647 | <i>Jamesonia</i>             | H <sup>+</sup> erect         |                                     |
| 17648 | <i>Grass.</i>                | H <sup>+</sup> erect         | Inf. purplish                       |
| 17649 | <i>Alchemilla orbiculata</i> | H <sup>+</sup> erect         |                                     |
| 17650 | <i>Solanum</i>               | Trunk 6-10'                  | Cor. y-gr., bushes                  |
| 17651 | <i>Melastom</i>              | Slender 2-4'                 | Pet. deep pi                        |
| 17652 | <i>Diphysophum</i>           | S 1-6'                       | Rasp light pi                       |
| 17653 | <i>Stipa</i>                 | H                            |                                     |

Jan. 18 Paramo de Mogotocoro

3700-  
3800m.



- 17654 *Dryopteris* H  
 17655 *Moss* on soil  
 17656 *Alga* moist soil?  
 17657 *Polypodium* On soil  
 17658 *Moss* " "  
 17659 *Hypericum* S-6-10'  
 17660 *Bascharia* S 3-4'  
 17661 *Aster* H  
 17662 *Halenia* H esp.  
 17663 *Gnaphalium* S low  
 17664 *Rebennium* V herb  
 17665 *Elaphoglossum* H  
 17666 *Meriania* S 3-4'  
 17667 *Espeletia* H  
 17668 *Pernettia* S 6-12 inches  
 17669 *Diplosiphium* S low  
 17670 *Rumex* H repant  
 17671 *Alchemilla* H forming mats  
 17672 *Comp.* H  
 17673 *Geranium* H  
 17674 *Bidens* H  
 17675 *Geranium* (very distinct) H esch.  
 17676 *Veronica* H repant  
 17677 *Mimulus* H  
 17678 *Paspalum* H  
 17679 *Phleum* H  
 17680 *Grass* H  
 17681 *Cernua* H esp.  
 17682 *Lobelia* H  
 17683 *Vaccinium* S 10-15'  
 17684 *Comp.* S 3-4'  
 17685 *Cerastium* H  
 17686 *Senecio* H

Pet. bright y  
 Pap. wh.  
 Rays wh; fl. yellow  
 Cr. light gr., sp. wh.  
 Cr. deep pi.  
 Fr. or. red.  
 Pet. mag.  
 Rays bright y, fl. deep y  
 Fr. purplish  
 Rays wh.  
 Sep. light y  
 Rays wh.  
 Pet. y.  
 Rays bright y  
 Pet. deep pi.  
 Cr. bright blue  
 Cr. y.  
 Rays wh.  
 Cr. bright blue  
 Cr. pure wh.  
 Cr. gr. - y.  
 Pet. wh. light  
 Fr. purplish  
 Pap. gr. - y.

Jan. 18 Paramo de Nogotocoro

3700 -  
3800 m.

Paramo de Rio

3750 -  
3850 m.

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17687	<i>Cladonia</i>	On soil	
17688	Moss	" "	
17689	<i>Alga</i>	wet soil	
17690	<i>Saxifraga</i>	V herb	
17691	Orchid	H Ep? <sup>??</sup>	3 sep. deep pi, wh. at base; inner parts wh.
17692	Moss	On soil	
17693	<i>Eupatorium</i>	H <del>stems</del> S 2-4'	All parts pure wh.
17694	<i>Hypocnemis</i>	S 3-6'	Pet. bright y; st. ± 30
17695	<i>Salvia</i>	H	Deep purp. dist. & sty. purp; cor. deep pi-purpl.
17696	<i>Myosotis</i>	H	Cor. bright blue
17697	<i>Castilleja</i>	S 3-6'	Br. y. purp, bright red dist
17698	<i>Thibaudia</i>	S 6-12'	calyx ..
17699	<i>Calceolaria</i>	S 2-4' plant very glutinous	Cor. deep pi, gr. y at apex
17700	<i>Eupatorium</i>	S 6-12' plant glutinous	Cor. bright y
17701	<i>Bomarea</i>	V herb	Cor. & style deep pi when y, light gr. when older
17702	<i>Salvia</i>	H 1-4'	See notes
17703	<i>Phytolacca</i>	H 3-5'	Calyx & dist. purp. Cor. bright blue, faint at base
17704	<i>Centropogon</i>	S	Anth. gr., rest of fl. rich pi.
17705	<i>Wegandia</i>	H 1.5-3'	Cor. red
17706	<i>Cyathia</i>	H	Cor. bright blue
17707	<i>Elaphoglossum</i>	H	
17708	<i>Polypodium</i>	H rep.	
17709	<i>Oxalis</i>	H rare low red beneath	Calyx pi-purp.
17710	<i>Niconia</i>	T 12-15' slender	Pet. y, red-otupied
17711	<i>Peperomia</i>	H rep.	Pet. of fls. gr. wh., antth. wh.
17712	<i>Asplenium dissectum</i>	H	Spikes 3.
17713	<i>Polypodium</i>	H rep.	
17714	<i>Myrsineae</i>	S 8-12'	Cor. fil. wh., antth. gr.
17715	<i>Eupatorium?</i>	S 8-10' plant glutinous	Cor. pi, lobes & sty. wh.
17716	<i>Arenaria</i>	H weak	Pet. wh.
17717	<i>Psephosia</i>	V herb	
17718	<i>Calceolaria</i>	S	
17719	<i>Refaria</i>	T 12-15'	Cor. bright y calyx & cor. variegated with a sticky gum calyx deep gr. Cor. red

Jan. 18 Paramo de Rico

3750-3850 m.

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18 open hillside

California

2000 m.

18371

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19 Paramuelo, below Paramo de Rico

3500-3600 m.

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wh. at base.

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Cer. pi, upper lip "green"

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Paler at base; style red



17720	Eupatorium	H ± woody	Cr. gr. wh, lobes sty. <sup>purple</sup> pi.
17721	Bomarea	✓ herb.	See notes
17722	Halimolobos	H	Cor. light gr, spur wh.
17723	Osteomeles	T 12-15'	Fl. reddish-br.
17724	Berberis	S 8-12'	Pet. bright y, fr. deep red
17725	Jamesonia	H rep.	
17726	Miconia	S 8-12'	Pet. & style wh. <sup>stam.</sup> gr. wh.
17727	Vaccinium	86-10'	Calyx light gr. Cor. light pi.
17728	Senecio	56-8'	Cor. gr. wh, anthers y. style gr.
17729	Moss	in black soil	
17730	"	in soil	
17731	"	" "	
17732	"	" "	
17733	Lichen	" "	
17734	"	" "	
17735	Hep.?	On trees?	
17736	"	" "	
17737	Moss	" "	
17738	Lichen	" black soil	
17739	Moss.	On trees	
17740	Eupatorium	H?	Cor. gr. wh, lobes & sty. rich pi.
17741	Elaphoglossum	H rep.	
17742	Cestileya	8 4-6' tangled in thickets	Br. gr, reddish. sep. red, y. anthers.
17743	Permettella	8 2-4'	Cor. pure wh.
17744	Thibaudia	8 8-15'	Calyx brown, cor. bright
17745	Gaultheria	8 slender 2-4'	red throat
17746	Diplostefium	8 br. drooping	Cor. rich pi.
17747	Weinmannia	T 15-30	Br. y. g, rays wh. cor. light gl.
17748	Elaphoglossum	H rep.	Pet. cream wh.
17749	Lycopodium	H epip.	
17750	Moss	On trees	
17751	Polypodium	H epip.	
17752	Jamesonia	H "	

Jan. 19 Paramillo below Paramo Rico

3500-  
3600 m

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Woods, western slopes of Paramo Rico 3500m

3300-

3500m

cor. gr. y.

red throat



- 17753 Passiflora  
 17754 Sibthorpia  
 17755 Fuchsia  
 17756 Hymenophyllum  
 17757 Asplenium  
 17758 Elaphoglossum  
 17759 Hymenophyllum  
 17760 Dryopteris  
 17761 Lycopodium  
 17762 Lycopodium  
 17763 Lomaria  
 17764 Oxalis  
 17765 Hydrocotyle  
 17766 Cardamine  
 17767 Centropogon  
 17768 Asplenium  
 17769 Eupatorium  
 17770 Melastom.  
 17771 Fuchsia  
 17772 Veronica  
 17773 Centropogon  
 17774 Cestrum (fr. 17224)  
 17775 Dendropanax  
 17776 Bromelia  
 17777 Dichaea  
 17778 Gardoquia  
 17779 Dendropanax  
 17780 Rubus  
 17781 Hypericum  
 17782 Phoradendron  
 17783 Phoradendron  
 17784 Berberis  
 17785 Vaccinium

- V. herb.  
 H rep. los reddish beneath  
 S low, branches creeping  
 H rep.  
 H epip.  
 H epip?  
 H epip.  
 H ter.  
 H 2-4'  
 H epip.  
 H ter.  
 H wo.  
 H rep.  
 H  
 V woody  
 H epip.  
 S 8-10'  
 S small  
 S 10-20'  
 S with creeping branches  
 H  
 S (no note)  
 S  
 T 40-70  
 H epip.  
 H epip.  
 S 2-4'  
 T 12-15'  
 V woody whole plant sticky  
 S 5-8'  
 S epip.  
 S epip.  
 S slender 8-12'  
 S 6-8'
- Cor. pinkish-purple  
 Calyx tube, lobes light  
 Pet. dark  
 Cor. y-g.  
 Lvs. reddish base.  
 Pet. y. with faint red stripes  
 Stems, purple, fr. gr.  
 Pet. white  
 Lvs. reddish base  
 Cor. light red, pale pi. in  
 Cor. white, apparently pink  
 Pappus pink  
 Pet. deep red, fil. pi.  
 with purple  
 Calyx & sep. light red  
 Pet. dark, with light gr.  
 Cor. bright bl., whitish base  
 Cor. red, tube pi. in  
 Fr. black  
 Fr. green  
 Br. gr. furc. red dist.  
 sep. light gr. wh.  
 Fr. light gr.  
 Cor. rich pi, gr. at base  
 Fr. reddish-brown  
 Pet. deep pi.  
 Pet. bright, st. ± 75'  
 Fr. reddish  
 Cor. wh.

Jan. 19 woods, western slopes of Paramo <sup>Rio</sup> 3300  
 -3500m.!

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|-------|----------------------------|--|---|
| 17786 | <i>Alonsoa</i>             | H  | Cor. light red  |
| 17787 | <i>Hymenophyllum</i>       | H epip   |   |
| 17788 | <i>Mucuna</i>              | On dry branches                                  | Purplish caps   |
| 17789 | <i>Adontoglossum</i>       | H ter.   | See notes   |
| 17790 | <i>Aralia</i>              | T 15-25'   |   |
| 17791 | <i>Disterigma</i>          | S erect  | Cor. wh.  |
| 17792 | <i>Muehlenbeckia</i>       | V herb.  | Pet. gr.-y  |
| 17793 | <i>Dryopteris</i>          | H  |   |
| 17794 | <i>Polypodium</i>          | On trees?  |   |
| 17795 | <i>Pittacanthus</i>        | S epip.  | Calyx tube bright red<br>Pet. bright y.   |
| 17796 | <i>Miconia</i>             | S 5-12'  | Calyx bright y.<br>Pet. anth. o. fil. wh.   |
| 17797 | Moss                       | On trees?  |   |
| 17798 | Lichen                     | On dry branches                                  |   |
| 17799 | Hep.                       | " trees  |   |
| 17800 | <i>Marchantia</i>          | Soil?  |   |
| 17801 | <del>H</del> Moss          | On soil  |   |
| 17802 | "                          | " wet logs                                       |   |
| 17803 | "                          | " tree trunks                                    |   |
| 17804 | Hep.                       | " wet logs?                                      |   |
| 17805 | <i>Cladonia</i>            | " tree trunks                                    |   |
| 17806 | <i>Elaphoglossum</i>       | H epip.  |   |
| 17807 | <i>Peperomia</i> (missing) | H epip.  | Fls. light gr. beneath<br>Sp. gr.; stems purple<br>Cor. wh. prox. dist. lobes<br>red pi.; styles w. |
| 17808 | <i>Eupatorium</i>          | S slender<br>4-5'                                |   |
| 17809 | <i>Myrsineae</i>           | S 5-15'  | Prick gr.   |
| 17810 | <i>Bomarea</i>             | V herb.  | See notes   |
| 17811 | <i>Cyathia</i>             | H  |   |
| 17812 | <i>Jamesonia</i>           | H  |   |
| 17813 | <i>Peperomia</i>           | H epip.  |   |
| 17814 | <i>Oxalis</i>              |  | Sepals pi., pet. y. red<br>striped  |
| 17815 | <i>Cibotium</i>            | caudex succulent<br>1-2'; fr. (incl. stipe) 5-6' |   |
| 17816 | Comp.                      | S 8-10'  | Cor. or. y.   |
| 17817 | <i>Drimys</i>              | T 20-30'   | Pet. wh., fr. gr.   |
| 17818 | <i>Centropogon</i>         | V woody  | Cor. light gr. ventrally  |

Jan. 19 Woods, western slopes of Paramo Rio 3500-3500m.

3100-3300m.

pi. - or. + lobes



- 17819 *Bomarea* ✓ herb  
 17820 *Centropogon* ✓ woody  
 17821 *Cyathia* ✓ herb  
 17822 *Stelia* ✓ herb  
 17823 *Polypodium* ✓ herb  
 17824 *Meriania* S 5-8'  
 17825 *Passiflora nixta* ✓ woody  
 17826 *Achyrocline* S 1-3' br.  
 17827 *Calceolaria* S 3-5' drooping  
 17828 *Centropogon* ✓ woody  
 17829 *Centropogon* S 2-3'  
 17830 *Vallea* S 12-20'  
 17831 *Passiflora* ✓ woody  
 17832 *Malaxis* ✓ herb  
 17833 *Centropogon* ✓ herb  
 17834 *Meriania* S 12-18  
 17835 *Lebanon* S 6-8'  
 17836 *Polypodium* ✓ herb  
 17837 *Oxalis* ✓ herb  
 17838 *Cystopteris* H  
 17839 *Hymenophyllum* H on banks  
 17840 *Orchid*  
 17841 *Idem* On los. of 17840  
 17842 *Anthurium* H ter.  
 17843 *Anthurium* H ter.  
 17844 *Myrsineae* S 5-12'  
 17845 *Buddleia* S 10-15' branches  
 17846 *Elaphoglossum* H ter.  
 17847 *Polypodium* H ter.  
 17848 *Anthurium* H ter.  
 17849 *Centropogon* ✓ woody  
 17850 *Bomarea* ✓ herb  
 17851 *Melastomae.* S 3-6'

Out. o. cinn. dull red.

Cor. light red; pale pi. in

Caudex 10-20', fr. 10',  
 3rd light gr., inner cream

Pet. rich p. out, wh.

Invol. gr. ventr., red. str.

Head gr. y

Cor. bright y

Cor. light red, pi. in

Cor. or. red, lobes dup y

Pet. reddish pi.

Colony = 17825 fr. just  
 purple bud 67. cor. lacking

Sep. light gr.

Cor. light red, lobes  
 n. y; lob. pinkish ber

Pet. pink

Rays bright y

Cor. red, sep. pi., pet. y, red

striped.

3 sep. gr. pi. per. y. y. clust.  
 with purp. spots in stripes

2 sep. light gr. purple-dotted  
 (old out.) col. wh. y at apex

Mr. gr.

Cor. or.

Cor. red, pale pi. in

Calyx gray, deep red

Pet. wh. fil. pi. wh. anther

purpleish

Jan. 19 ~~1900~~ western slope of Paramo Rico - 3300 m.

stepe 2'

pi. tinged in, fil. wh. styles pi. wh. purple between  
 brachy tube y-g., sep. pi. out, tube wh. in; cor. in 2 series

inside y

2 sep. light gr. purple-dotted  
 (old out.) col. wh. y at apex

purpleish



- 17852 *Begonia* 5-12' Sep. pi. wh., ant. y.  
 17853 *Alchemilla* H. prostrate below Pet. gr.  
 17854 *Cibotium* heferm Under crest, 2-3'  
 17855 *Palicourea* H. shrubby Cor. bright y., lobes wh.  
 17856 *Cephaelis* S 5-8' Bracts y. with imbr. hairs  
 17857 *Thibaudia* S 10-15' Cor. lobes, 2-3' wh.  
 17858 *Bomarea* V. herb Calyx g. Cor. pi. red 1/2 l.  
 17859 *Pteris* H. both per. parts red  
 17860 *Columnnea* H. Bracts g. per. observed  
 17861 *Grass* H. Cor. light red, y. g. apex  
 17862 *Rubus* V. woody Pet. deep pi.  
 17863 *Solanum* S 3-8' Cor. wh., ant. g. wh.  
 17864 *Oenothera* T 18-25' Fr. gr.  
 17865 *Marchantia* Moist bank  
 17866 *Funaria* On dec. logs  
 17867 *Elaphoglossum* On rocks  
 17868 *Lichen* On trees  
 17869 *Marchantia* Damp soil  
 17870 *Moss* Decayed log  
 17871 *Lichen* On trees  
 17872 *Oenothera* H. "Flowering after sundown" Petals pure wh.  
 17873 *Thibaudia* S "Buenos tardes" cal. pale p., cor. w., becoming  
 17874 *Solanum* H 3-4' pet. w. ant. br.  
 17875 H 2-4' cal. br. ant. y.  
 17876 *Centropogon* V. V. pet. deep pur.  
 17877 *camp.* S 12-15' cor. deep r.  
 17878 S 8-12' ray y. cor. y., pap. pale  
 17879 *Cestrum* S 8-15' pet. light p., style r.  
 17880 *Elaphoglossum* F in crevices of rock lobes light  
 17881 *Bomarea* H. V. cal. p. out. pale in, faintly  
 17882 *Bomarea* H. V. pet. becoming g. at apex  
 17883 *Cestrum* T 12-15' sep. light o., paler in. pet.  
 17884 *Franseria* H. coarse. cal. deep g. pet. y.

Jan. 19 Woods, western slopes of Paramo Rico 3100 - 3300 m.

21 crevices of rocks California 2000 m.  
 woods  
 22. open hillsides, vic. of Uetas 3000 - 3200  
 thickets

Open hillside thickets  
 pur. spotted at apex, in style pale y.  
 pur. " " in pet. pale y. ant. brownish  
 r. tinged at apex, deep pur. spotted in  
 g. vv.

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- 17885 comp. S. 8-15' ray w. cor tube + lobes + sty. o. y.  
 17886 S. 4-6' cal. g. lobes g. y. stig. y. g.  
 17887 Solanum S. 8-12' pet. w. sty. y.  
 17888 Eupatorium T. 12-15' br. g. cor. tube g. be- coming paler dist.  
 17889 Alnus T. 12-20'  
 17890 Maunung T. 12-15' pet. deep. b.  
 17891 Lantana F. moist  
 17892 Euphloglossum F. in crevices  
 17893 Euphloglossum F. of rock  
 17894 Eryngium H.  
 17895 Rubus U. U.  
 17896 Presine H. coarse  
 17897 Berberis? S. 8-12' fr. (young) g.  
 17898 Salvia H. 3-6' cor. br. r.  
 17899 (leg) H. U. kept & under br. fur, stem paler  
 17900 Polypodium F.  
 17901 Melastom H.  
 17902 comp. H. coarse  
 17903 Eupatorium S. 3-5' cal. pale g. pet. y. fr. t. ant. y. tube  
 17904 Tournefortia T. 5-8' br. g. cor. tube phr. becoming paler to w. at lobes  
 17905 comp. H. cal. g. cor. tube pale g. becoming w. at lobes  
 17906 Cuscuta H. U. prostrate cal (?) pale y. ovary y. cor pet. w.  
 17907 Rubus U. U.  
 17908 (comp) Stevia H. 2-3' cal. g. cor. tube g. w. lobes p. paler w. sty. p. styles paler  
 17909 Tournefortia S. 8-10' bran. very droop. cal. g. cor. tube g. pet. w. ant. y. lobes fine w.  
 17910 Solanum S. 12-15' pet. w. ant. y.  
 17911 Cystopteris F. rocky soil  
 17912 Pityrogramme F. in crevices  
 17913 Alchemilla H. dry soil  
 17914 comp. H. br. g. ray. w. cor. tube g. lobes y. sty. y.  
 17915 Solanum H. becoming paler dist. pet. w. ant. y.  
 17916 Solanum S. 10-15' pet. w. ant. y.  
 179187 grass H. in moist places

Jan. 20. thickets

vic. Velas

3000  
3200sty. w.  
lobes w.

open hillside

thickets

E. o. h.

sty. cream w.  
thickets

lobe

open hillside

thickets

o. h.

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- 17918 *Vaccinium* S 1-2' cal. cream w.  
 17919 *Eupatorium* S 15-18' cor. pure w.  
 17920 *Passiflora* H.V. br. cor. tube g. w.  
 17921 *Pteris* F. lobes w. sty. w.  
 17922 *Peperomia* E.H. no fl.  
 17923 *Passiflora* H.V. no fl.  
 17924 *Osteospermum* S 6-8' cal. g. pet. w.  
 17925 *Polypodium* F. on moist aut. reddish  
 17926 *Centropogon* F. banks. cor. br. r.  
 17927 *Monnina* S 4-6' pet. deep purr.  
 17928 *Alnus* T 8-14'  
 17929 *orchid* H 3-5' tube greenish, sep. y.  
 17930 *Weinmannia* S 6-8' pur. spot. at apex  
 17931 *orchid* H. on rocks cal. g. gran. p.  
 17932 *Trypsetes* F. sep. paler.  
 17933 *Muhlenbergia* H. on rocks sep. pur, yellow  
 17934 *Escallonia* F. cal. g. pet. p.  
 17935 *Calandrinia* H.V. T 15-25'  
 17936 *Brickellia* H. pet. br. b.  
 17937 *Elaphoglossum* H. pet. br. b.  
 17938 *Rapanea repens* F. crev. of rocks  
 17939 *grass* S 3-5' cal. + lobes g. w.  
 17940 *orchid* H. terr. tube g. to y.  
 17941 *moss* H. on soil sep. y. faintly spot.  
 17942 *moss* on dry boulders  
 17943 *lichen* on soil in crev. of rock  
 17944 *moss* moist soil.  
 17945 *moss* on rocks  
 17946 *gramineae* H. pet. purp.  
 17947 *Lomaria* F. sep. (?) purr.  
 17948 *Barbula* H. cor. pet. g. y.  
 17949 *Vaccinium* H. S. broad, beneath  
 17950 *Cystopteris* F. in crevices of rock

Jan. 20. Thickets vic. Vetas 3000  
3200

Jan. 21 O.H. Jaramiller vic. Vetas 3500-  
3600

out.

edge of farano Santurben 3600-  
3800  
Jaramiller vic. Vetas 3500  
3600

edge of farano Sant 3600  
3800

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- 17951 *Elaphoglossum*  
 17952 *Polypodium*  
 17953 comp.  
 17954 *Marattia*  
 17955 hepatic  
 17956 moss  
 17957 moss  
 17958 *Polypodium*  
 17959 *Polypodium*  
 17960 grass  
 17961 *Senecio*  
 17962 *Hypericum*  
 17963 grass  
 17964 *Isaete*  
 17965 comp.  
 17966 grass  
 17967 *Tycopodium*  
 17968 *Tycopodium*  
 17969 *Solanum*  
 17970 *Elaphoglossum*  
 17971 *Sphagnum*  
 17972 moss  
 17973 hepatic  
 17974 moss  
 17975 geranium  
 17976 *Alchemilla*  
 17977 *Elaphoglossum*  
 17978 Umbel.  
 17979 *Werneria*  
 17980 comp.  
 17981 geranium  
 17982 *Halema*  
 17983 *Clivanthus*

- F in cren. of rock  
 F. " bracts gr. br. ray br. fur.  
 H. cor. tubes q. lobes y.  
 moist soil  
 beside running stream  
 bottom of running stream  
 moist soil  
 " "  
 crevices of rock  
 " " "  
 H slender bracts q. cor. tube  
 2-8 pale y. lobes pr. y.  
 5-10 cal. q. pet. y. sta. styles y.  
 3-5  
 H. rooting in mud in shallow water  
 F at margin. Usually submerged,  
 moist soil  
 H. soil cor. tube pale y. lobes  
 4-6  
 H. crevices of  
 F. by rocks  
 F. moist soil  
 12-18 pet. br. b. ant. y.  
 F. in crevices  
 of rock  
 on moist soil  
 on bottom, running stream  
 " " shallow borders  
 of lagoon.  
 H. pet. p.  
 5-6 cal. pale q. cor. lobes pale y.  
 lobes y.  
 F. crevices of  
 rock  
 H.  
 H. br. q. ray. w. pap. y.  
 H. br. q. ray. y. cor. tube,  
 lobes, & sty. y.  
 H. petals pale pur. p.  
 H. cal. q. cor. y. w.  
 F.

Jan. 21 edge of farano San Luitán 3600  
 3800

borders of Laguna de Cunta 3880

but often aquatic and even entirely terrestrial.  
 br. y.

farano Frailejonalle  
 Frailejonalle

3750-  
 3850



- 17984 *Passiflora* H. 2-3' sep. (?) q. to pur.  
 17985 moss on rocks  
 17986 " "  
 17987 " "  
 17988 " "  
 17989 *Rubus* W.V. pet. p.  
 17990 *Escallonia* S. 6-10' cal. g. pet. w.  
 17991 *Vigularia* H. 1-2' cor. pale p.  
 17992 grass H. cor. pale b.  
 17993 *Tridax* H. cal. g. cor. tube rich p. becoming paler at lobes, paler in  
 17994 *Thibaudia* S. 6-10' fil. brown, ant. paler str. rich p. becoming deeper dist.  
 17995 *Phyllanthus* T. 8-12' sep. p. q. in center pet. same.  
 17996 *Solanum* V. or 5 with cor. w.  
 17997 comp. S. 8-10' br. g. ray. y. cor. tube  
 17998 orchid H. Terr. sep. pale y. striped  
 17999 *Centropogon* W.V. cor. rich p.  
 18000 *Passiflora* H. V. descr. in notes  
 18001 comp. S. 8-12' br. g. ray. w. cor  
 18002 *Cupatim* S. 6-10' tube g. y. lobes y.  
 18003 *Hipocistis* F. cor. tube pale pur, str. red with deeper pur.  
 18004 *Cuphea* H. 2-3' H. bran. elong. lobe deep. pur.  
 18005 grass H. V. ~~long~~  
 18006 grass H. V.  
 18007 *Parosela* S. 6-12' pet. p.  
 18008 *Epilobium* H. tube g. to p. sep. p.  
 18009 *Nyctia* S. 2-3' cal. g. tinged with pur, cor. tube g. becoming pur.  
 18010 *Solanum* S. 4-5' pet. w. ant. y.  
 18011 *Claphoglossum* F. H. V. cor. tube & lobes y, paler prox.  
 18012 *Escallonia* S. 6-8' fr. g.  
 18013 *Thibaudia* H. pet. br. b.  
 18014 *Salvia* moist soil  
 18015 moss "  
 18016 " "

Jan. 21 Paramo Trallejonalle

Jan. 22

between Uetas  
and S. G.2300-  
28003  
2

lobes 23. open hillsides vic. La Baya

2500-  
26002900-  
2400



" 3-4' cor. w.  
 H. sub can. ant. y.  
 F. pet. cream. w.  
 H.  
 H. fls.  
 H. pet. br. b.  
 H. cal. g. striped with pur.  
 H. ~~cor. tube g.~~ becoming  
 fls. petals  
 F.  
 S. 6-8' sep. & ant. y. w. in pur.  
 H. U. in at apex fil. pale  
 H. pro. fr. r.  
 S. 1-2'  
 F.  
 H. pro. fr. g. y.  
 H. slender. pet. w.  
 S. 3-4'  
 F.  
 T. 10-15'  
 S. 8-10' fr. y. tinged with p.  
 S. 4-5' br. g. ting. with p.  
 S. 1-2' br. (?) r.  
 S. young fr. g. pale g.  
 T. 25-30' lobes pale g.  
 S. 4-6' but ap. p. dist.  
 S. partially dwarfed with p. sep. g. ting.  
 T. 20-25' trunk br. g. ray. y.  
 T. ± 3" diam cor. tube g. y.  
 H.  
 H. lower semi pro.  
 H. 2-3' lra. (sep?) q. w.  
 H.  
 S. 2-3' br. g. cor. tube g. p.  
 S. lobes pale p. sty.  
 H. cal. p. cor. tube p. lra.  
 at lobes.  
 S. 6-8' cal. pale g. cor. w.

spot. at apex, pet. v. prox, g. dist, few spotted  
y, ant. greenish. Heuch  
O. H.

lobes.



- |       |                               |   |
|-------|-------------------------------|---|
| 18050 | <i>Solanum</i>                | S 8-12' pet w. ant. y.  |
| 18051 | <i>Rebunium</i>               | H. lrg. scan. t fr. o.<br>S 5-8' pet p. sta. y.   |
| 18052 | (fuelest.)                    | S 1-3'  |
| 18053 | <i>Hypnum</i>                 | F   |
| 18054 | <i>Elaphoglossum</i>          | T 30-50'  |
| 18055 | <i>Brumelia</i> "salsbrillo"  | H. tr. o.   |
| 18056 | <i>Brumelia</i>               | U. V. br. q. ting with pur.<br>cor. tube lq. lobes deep<br>sep. br. q. paler to y. rim. |
| 18057 | <i>Denonia</i> "seu"          | H. U. fil. + sty. pale y.   |
| 18058 | <i>Baueria</i>                | H. much-bran.   |
| 18059 | <i>Rhytolasca</i> "guava"     | H. spreading. pet. y.   |
| 18060 | <i>Calceolaria</i>            | S 1-2 1/2'  |
| 18061 | "                             | H 2-4' pet. y.  |
| 18062 | <i>Eupatorium</i>             | S 3-5' br. q. cor. tube pale q.<br>lobes y.   |
| 18063 | <i>Osteocaulis</i> "mortuina" | S 3-5' br. q. becoming r.   |
| 18064 | <i>Pteris</i>                 | F.  |
| 18065 | <i>Mimblebuschia</i>          | U. V. br. y. becoming pur.  |
| 18066 | lichen                        | on rocks  |
| 18067 | moss                          | on soil   |
| 18068 | "                             | shaded banks  |
| 18069 | "                             | " "   |
| 18070 | "                             | " "   |
| 18071 | "                             | earth banks   |
| 18072 | "                             | " "   |
| 18073 | lichen                        | dry banks   |
| 18074 | "                             | " "   |
| 18075 | "                             | on tree trunks  |
| 18076 | moss                          | on soil.  |
| 18077 | "                             | dry banks   |
| 18078 | lichen                        | " "   |
| 18079 | <i>Psychotria</i>             | T 9-12'   |
| 18080 | comp.                         | T 20-25' br. q. cor. tube q.<br>lobes y.  |
| 18081 | <i>Lipidium</i>               | H. decumb.  |
| 18082 | <i>Viburnum</i>               | S 8-10' calq. pet. w. fil. w.   |

Jan. <sup>24</sup>/<sub>33</sub> edge of woods above La Bija. 2900-3400

to par  
prox. <sup>open hillsides</sup> <sup>get</sup> prox. r. dist. r. stripe in center out.  
ant. br. or grey.

(edible)

oak forest above La Brea 3400-8  
3600



- 18083 *Lacistema*  
 18084 *Cibotium*  
 18085 *Phorodendron*  
 18086 camp.  
 18087 *Thibaudia*  
 18088 *Polemonium*  
 18089 camp.  
 18090 *Solanum*  
 18091 *Peperomia*  
 18092 *Arenaria*  
 18093 grass  
 18094 "  
 18095 *Cibotium*  
 18096 *Sium*  
 18097 *Polypodium*  
 18098 *Oxalis*  
 18099 *Branelia*  
 18100 *Pasiflora*  
 18101 camp.  
 18102 *Polypodium*  
 18103 *Centropogon*  
 18104 camp.  
 18105 grass.  
 18106 *Bauhinia*  
 18107 *Begonia*  
 18108 lichen  
 18109 moss  
 18110 "  
 18111 *Anthurium*  
 18112 *Tropaeolum*  
 18113 (lab.)  
 18114 *Sellaginella*  
 18115 *Juncea*

T. 20-30'  
 F. cand. subter. I 1/4'.  
 F. fr. (incl. st.) up to 3'  
 E. S.  
 S. 9-12' l.r. g. pap. w. cor.  
 S. 9-12' tube x. g. lobes y.  
 S. 9-12' cal. bluish r.  
 S. 8-10' cor. r.  
 S. 8-10' cal. g. cor. tube t  
 S. 8-10' lobes pur. to pur.  
 S. 8-10' rays pur. cor. tube  
 H. U. pet. w. ant. y.  
 H. terr.  
 H. pro.  
 H.  
 H. cand. erect 4-5' ca. "diam.  
 F. fr. (incl. st.) 3 1/2-5'  
 H. cal. g. ting. with pur.  
 F. pet. w.  
 H. pet. x, striped with r.  
 H. bracts o. cor. pur.  
 H. no fl.  
 U. l.r. g. rays pale y.  
 H. cor. tube pale y, lobes deeper  
 F. cor. l.r.  
 W. U. l.r. g. ting. with pur.  
 H. 2-3' ~~l.r. g. rays pur.~~ cor. tube g. y, lobes y.  
 T. slender, 1.5-30'.  
 T. trunk 1.5-30'.  
 H. U. sep. o. y. g. ting. at apex, especially out. pet. o. y, deeper stripe in center out.  
 H. U. fil. stip. y, ting. darker grey & brownish.  
 l.r. (x) + pet. (x) y, ting. with r.  
 on dry soil  
 on dry stumps  
 decayed log.  
 H. terr.  
 H. U. cor. spur r, tips g.  
 H. pro. pet. b.  
 H. marshy soil  
 F. marshy soil  
 H. coarse  
 H. upto 4'

Jan. 24<sup>th</sup> oak forest above La Bja.

3400  
3500

3

2

1

1

2

24 along streams vic. Calif.  
 woods along stream, above  
 La Bja.

2000  
2900-3000

stream bed



18116	<i>Cardamine</i>	H.	cal. g. pet. w.
18117	<i>Solanum</i>	S. $\pm 6'$	ant. y. pet. w. Y ant. y.
18118	<i>Polypodium</i>	F. <sup>turning up</sup> tree trunk	
18119	<i>Piper</i>	S. 3-4'	
18120	<i>Peperomia</i>	E. H.	
18121	"	E. H.	
18122	orchid	H. terr.	br. r. tube 3 sep. p. 3 inner sep. (?) w. ting. with p.
18123	lichen	on trees	
18124	<i>Salicourea</i>	S. slender 6-8'	fr. c.
18125	<i>Piper</i>	T. 12-25'	
18126	<i>Hydrocotyle</i>	H.	
18127	<i>Psittacanthus</i>	E. S.	
18128	<i>Lycopodium</i>	F.	
18129	<i>Milium</i>	W. U.	cal. g. br. g. has sep. deep p. out pale in. g. ting. at apex. pet. y. pro. g. d. w. few spot. (thicket)
18130	<i>Bauera</i>	H. V.	near apex in. with p. stripe in center but. d. deep. g.
18131	<i>Mimulus</i>	H. <sup>pro. ac.</sup> most soil faintly r. spotted in. 3-4' bran.	cf. g. woods along str.
18132	<i>Solanum</i>	H. elong. 3-4' bran.	thicket
18133	<i>Eupatorium</i>	H. <sup>coarse</sup> $\pm 4'$	open hillside
18134	comp.	H.	thickets
18135	<i>Polypodium</i>	F.	
18136	"	F. 4-5'	open hillside
18137	<i>Mimulus</i>	S. 4-5'	
18138	<i>Viola</i>	H. V.	pet. deep. l. sep. g. pet. w. striped with pur. in.
18139	<i>Geranium</i>	H.	sep. g. pet. rich p.
18140	<i>Amorimia</i>	H.	pet. b. ter. b.
18141	orchid	H. terr.	br. g. cor. br. r.
18142	<i>Centropogon</i>	W. U.	
18143	<i>Polypodium</i>	F.	
18144	<i>Salvia</i>	H. 2-3' <sup>woody below</sup>	cor. br. r.
18145	<i>Siparuna</i>	S. 3-4' bran.	
18146	<i>Passiflora</i>	S. droop.	
18147	<i>Adiantum</i>	H. U.	
18148	<i>Galium</i>	F.	Corolla y. sep. g.

Jan. 24 wood along stream, above La Baja.

2900-3000

wooded valley  
g. ting. at apex. pet. y. pro. g. d. w. few spot. (thicket)  
cf. g. woods along str.

Jan. 25. open hillside, valley of Rio de La Baja

3000-3200



18143	comp.	H.	br. q. cor. tube q. y.
18150	Vallea	S. 3-5' bran. droop.	sup. + pet. p. ant. br.
18151	Baueria	H. V.	br. q.
A 18152	Eryngium	H.	
18153	"loto"	T. 12-15' trunk ± 2" diam. with 4	
18154	"arrayaos"	T. diverg. bran. near top	cal. q. pet. w. g. ting. out.
18155	orchid	T. 40-60'	fil. w. ant. y. w.
18156	Momium	H. terr.	tube q. y. sep. y. one
18157	orchid	S. 2-3'	ting. with br.
18158	Passiflora	H. terr.	pet. br. b.
18159	Oxalis "accedera"	H. V.	fr. q.
18160	comp.	H.	no fl.
18161	orchid	H.	sep. q. ting. with y.
18162	Barbiers	E. H.	pet. y. striped with r.
18163	comp.	S. 3-4' bran. droop.	br. q. cor. tube q. w.
18164	Hymenophyllum	F. base of tree trunks	lobes w.
18165	Hemipsea	S. 6-8'	sep. y. w.
18166	Myrsine	T. 25-35'	cor. tube pale pur. lobes
18167	Psychotria	T. 16-20'	br. pur. cal. q.
18168	Lycopodium	F.	fr. q. becoming r.
18169	moss.	on trees	cal. q. y. cor. tube q. y. be
18170	hepatic	" "	coming deeper dist. t
18171	lichen	on rocks.	
18172	hepatic	on trees.	
18173	Uelastang	S. 6-10'	pet. deep. r.
18174	Colum	S. 6-8'	fr. black.
18175	Asplenium	F.	
18176	Centropogon	U. V.	cor. br. r.
18177	Baueria	H. V.	sep. + pet. br. r.
18178	Begonia	S. ± 1'	pet. w. p. ting.
18179	Polysepia	S. 5-10' with slender central stem	sep. q. pet. w.
18180	Glucaria	S. compact	cal. q. w. pet. w.
18181	Ranunculus	H.	sep. q. y. style q.

Jan. 25<sup>24</sup> open hillsides, valley of Rio de La Baja

3000-  
3200

sep. (?) br. out. (wood useful)  
br. w. w.

oak forest, western slopes of Paramo de las Puente

3300-  
3400

fr. dark q.

fil. pale y. ant. grey, deeper dist. fr. q.  
at lobes. sty. y. becoming y, dist.

Paramullo, Paramo de las Puente

3500-  
3700



- 18182 *Eupatorium* S. 3-5' br. q. cor. tube w, be-  
conjug. p. lobes rich p.  
18183 *Calceolaria* S. 1-2½' pet. y.  
18184 *Eupatorium* H. compact, br. q. becoming fur.  
shrubby, ± 1½' tube q, lobes b. sty. b.  
18185 *Vaccinium* S. 1-3' cor. w.  
18186 *Melastom* S. 6-8' compact. cal. q. pet. w.  
18187 *Hypenium* S. round crowned  
2-5' pet. y.  
18188 *Areosa* S. 5-6' sep. q.  
18189 *(Melast.)* S. 3-5' pet rich p.  
18190 *comp.* H. erect. br. q. cor. tube pale q.  
lobes b. sty. blue  
18191 *Jamesonia* F.  
18192 *Eupatorium* H.  
18193 *Veronica* S. 2-4' br. q. cor. tube q. becoming  
deep dist. lobes b.  
18194 *Areogramme* T. 12-15'  
18195 *Clusia* F.  
18196 *Asplenium* T. 15-20' br. q. ting. with r.  
18197 " F.  
18198 " F.  
18199 *Hypenium* T. 10-12' pet. y.  
18200 *Alonsoa* H. sep. q. lobes o.  
18201 *Aletrisella* H. ant. y.  
18202 *Rubus* W. U. pet. p.  
18203 *Jamesonia "daradilla"* F.  
18204 *comp.* S. 8-12' br. q. y. tube q. y.  
lobes y.  
18205 *Hypenium* S. 1-3' pet. y.  
18206 *Epilobium* H. rays y. tube q.  
lobes y.  
18207 *comp.* S. 6-10' br. x. q. tube y. q.  
lobes & sty. y. q.  
18208 " S. low br. q. to pink. sep. q. w.  
18209 *Lycopodium* F.  
18210 *Passiflora* W. U. cor. br. r.  
18211 *Fuchsia* W. U. br. q. rays y. tube y. q.  
lobes y.  
18212 *comp.* H. cal. q. prox. c. dist.  
18213 *Befaria* S. ? pet. rich p. ant. y.  
18214 *Melast.* S. ± 1' pet. y.

Jan. 25. Paramillo, Paramo de las  
Puentes

Paramo de las Puentes  
edge of.

3600-  
3700

3500-  
3700

Paramo

edge

Paramo

edge

Paramo  
edge



- |       |                      |   |   |
|-------|----------------------|---|---|
| 18215 | <i>Eosium</i>        | S. 6-10'  | cal. q. cor tube deep<br>ferr. lobes y w. |
| 18216 | grass                | H.  |   |
| 18217 | umbel.               | H. ± 1'   |   |
| 18218 | grass                | H.  |   |
| 18219 | <i>Hydrocotyle</i>   | H.  | rep. w.                                   |
| 18220 | <i>Werneria</i>      | H.  |   |
| 18221 | <i>Phorodendron</i>  | E.S.  |   |
| 18222 | <i>Thibaudia</i>     | S.  |   |
| 18223 | <i>Alchemilla</i>    | H. <sup>stems</sup> <del>stems</del> <sub>stems</sub> | fls. gr.-y.                               |
| 18224 | rub.                 | H. <sup>stems</sup> <del>stems</del> <sub>stems</sub> | cor. wh.                                  |
| 18225 | geranium             | H.  | pet. p.                                   |
| 18226 | <i>Alchemilla</i>    | H. pro.   |   |
| 18227 |                      | H.  |   |
| 18228 | <i>Gerum</i>         | H.  | pet. y.                                   |
| 18229 | <i>Nalenia</i>       | H.  |   |
| 18230 | comp.                | H.  | br. q. rays w. tube lobes y. q.           |
| 18231 | comp.                | H.  | br. q. cor. tube q. w. lobes w.           |
| 18232 | <i>Oxalis</i>        | H.  | pet. y striped with r.                    |
| 18233 | comp.                | H.  | br. q. tube q. w. lobes w.                |
| 18234 | comp.                | H.  | br. q. w. tube q. w. lobes y. w.          |
| 18235 | <i>Castilleja</i>    | H.  | br. r.                                    |
| 18236 | grass.               |   |   |
| 18237 | <i>Diplostephium</i> | S. low, matted up to 4"                               |   |
| 18238 | grass.               | H.  |   |
| 18239 | (lob.)               | H. <sup>stems</sup> <del>stems</del> <sub>stems</sub> |   |
| 18240 |                      | H.  |   |
| 18241 | comp.                | H.  | br. q. pop grey                           |
| 18242 | <i>Plantago</i>      | H.  |   |
| 18243 | lichen               | on rocks  |   |
| 18244 | "                    | "   |   |
| 18245 | hepatic              | on tree   |   |
| 18246 | lichen               | on rocks  |   |
| 18247 | hepatic              | moist soil  |   |

Jan. 25 edge of Paramo de las  
Paramo { Fuentes

3500-  
3700

21821  
31821  
71821  
81821  
61821  
03821  
18221  
28221  
38221  
48221  
58221  
68221  
78221  
88221  
98221  
08221  
18231  
28231  
38231  
48231  
58231  
68231  
78231  
88231  
98231  
08231  
18241  
28241  
38241  
48241  
58241  
68241  
78241  
88241  
98241  
08241



- 18248 grass.  
 18249 *Bumera*  
 18250 camp.  
 18251 *Synopteris*  
 18252 *Lorania*  
 18253 camp.  
 18254 *Arenaria*  
 18255 *Viola*  
 18256 camp.  
 18257 moss  
 18258 lichen  
 18259 orchid  
 18260 *Elaphoglossum*  
 18261 "  
 18262 *Solanum*  
 18263 *Elaphoglossum*  
 18264 *Vaccinium*  
 18265 (*melast.*)  
 18266 *Valeriana*  
 18267 *Quercus* "roble"  
 18268 *Cattileja*  
 18269 *Broussia*  
 18270 moss  
 18271 moss  
 18272 lichen  
 18273 "  
 18274 "  
 18275 *Polypodium*  
 18276 *Cypripedium*  
 18277 *Peperomia*  
 18278 *Hypoxis*  
 18279  
 18280 *Sellaginella*
- H  
 T 12-15' fr. g.  
 T 15-20' fr. g. - pin. rays p.  
 F. tube deep. g. - pin.  
 F.  
 F.  
 H. br. pale g. tube g. y.  
 H. pro. cal. g. lobes y.  
 H. pro.  
 H. pro.  
 H. br. deep g. rays y. striped  
 out with pur. tube g. lobes y.  
 on soil  
 on rocks.  
 E. H. sep. y. w. greenish prox.  
 F. crev. of rock  
 "  
 S. ± 1' pet. w. ant. y.  
 F.  
 S. 4-8' cor. w.  
 S. 2-6' pet. p.  
 W. V. pet. g. cal. w.  
 T. 30-60' br. (2) g. pro. then r. y. dist.  
 S. 1-3' same all r.  
 H. ep. br. o.  
 H. V.  
 decayed wood  
 on soil  
 on logs  
 "  
 "  
 F.  
 H. br. semi - cal. g. cor. tube g. lobes rich p.  
 H. pro.  
 H.  
 H. cal. y. g. pet. c. y.  
 H. cal. y. g. pet. y. g.  
 H.  
 F. moist soil.

Jan. 25. Paramullo, Par de la  
Puentes

3588-  
3700

Oaks forest, <sup>western</sup> slopes  
Par de las Puertes

3300-  
3400.

clearing,  
Oak forest,

Jan. 26 wood banks of Rio de la Baja,  
below La Baja

2200-  
2300.



- 18281 *Psychotria* S. 5-7' few- cal. q. cor. tube w, greenish prox.  
 18282 *Bocconia* T. 12-20' lobes pure w.  
 18283 *Piper* S. 5-8'  
 18284 *Rilea* H. succ.  
 18285 *Centropogon* U. U. cor. br. r.  
 18286 grass H.  
 18287 *Commelina* H. bran semi- sep. q. pet. w.  
 18288 *Eupatorium* S. 4-5' few. br. q. ting with pur.  
 18289 *Palicourea* H. V. cor. tube, lobes, sty. w.  
 18290 comp. H. U. fr. q.  
 18291 T. 9-12' br. pale q. sep. y. q.  
 18292 *Luasa* W. V. + woody sep. q. pet. w. fil. w.  
 18293 U. U. ant. o. y.  
 18294 *Isyoptenis* F. fr. (incl. st.)  
 18295 *Clusia* T. 25-30' 3 1/2-5'  
 18296 *Solanaceae?* T. slender 8-10'  
 18297 (supl.) *Isyoptenis* F.  
 18298 comp. H. br. q. cor. tube q. y.  
 18299 *Begonia* S. ray. y.  
 18300 *Pichramnia* S. 6-8' sep. w. ant. y.  
 18301 *Antlerium* H. cor. q. pet. deep. r.  
 18302 grass H. fr. r.  
 18303 *Elaphoglossum* F.  
 18304 comp. S. 5-8' cor. tube q. y. lobes  
 18305 *Epideudrum* H. tube pur. 5 sep. p. ant. y.  
 18306 moss on rocks  
 18307 hepatic moist soil  
 18308 " "  
 18309 algae running water  
 18310 *Arenaria* H. cal (2) q. ovary (2) q.  
 18311 hepatic moist soil  
 18312 moss " "  
 18313 " banks.

Jan. 26 wooded banks of R. de la B.  
 below La Paja

2200-1  
 2300

tu

tu

3



- 18314 *Piper* S. 6-10'  
 18315 ~~*Passiflora*~~ *Jatuna* H. V. S. or small fl. cal. g. cor. w. sta. w.  
 18316 *Phenax* S. 8-10'  
 18317 *Vernonia* U. V. br. frag. tube g. lobes + sty. b. pet. + ant. y.  
 18318 *Solanum* U. V.  
 18319 *Urtica* H. V.  
 18320 *Passiflora* H. V. 7 cm. l. 11 cm. largest tube g. sep. w. g. tube g. pet. + ant. y.  
 18321 orchid H. terr. S. 8-10' inter sep. pale g. with reddish base out. with reddish ha pet. pale p.  
 18322 *Saurauja* U. V. cal. g. cor. tube g. w. lobes w. fr. g. spp. brownish pet. w.  
 18323 *Rubus* U. V. fr. black.  
 18324 *Valeriana* W. V.  
 18325 *Seyouia* W. V.  
 18326 *Lisocorea* U. V.  
 18327 *Psychotria* S. 6-10' fr. black.  
 18328 *Peperomia* H. ep.  
 18329 *Lycopodium* F. on banks.  
 18330 *Rub.* T. 12-15' stem erect, bran. near top.  
 18331 *Lichen* on decaying wood  
 18332 *Eupatorium* S. 10-12' pap. y. w. br. + sep. r.  
 18333 orchid H. terr.  
 18334 *Antennaria* H. terr.  
 18335 *Lycopodium* F.  
 18336 " F.  
 18337 *Psychotria* S. 8-10' fr. black.  
 18338 *Freisia* U. V.  
 18339 *Begonia* S. 6-10' br. + sep. r. pet. w. ant. y. cal. pale g. pet. w. ant. w.  
 18340 (melast.) S. slender, 5-7'  
 18341 S. 5-7' fr. g. cor. sep. g. pet. pale y. cal. g. lobes w.  
 18342 *Palicourea* T. 10-15' T. 12-20' grand droop  
 18343 *Buddleia* H. V. spathe pale g.  
 18344 *Duranta* H. terr.  
 18345 *Arceuthobium*  
 18346 *Antennaria*

Jan 26 Ucheto, valley of R. de La B.  
 anal. pr. cor. sometimes y. "borrachero"

± 2800

circum.

hairs out, especially at base. <sup>upper sep.</sup> pet. w. greenish at center but + gr. glabrous stripe at center in. [pet. pure w. fil. y. w. ant. y.]

dense forest above La Baja

2800-300.

fr. pur.

Anth. coriputense N.E. Br. det. T. Croat 1990



- 18347 *Hypoxis* S. 5-8' pet. y.  
 18348 *Selaginella* For. moist soil.  
 18349 *Gesner.* S. 8-12' bracts g.w.  
 18350 *Rhynchospora* S. 6-10' br. elong.  
 18351 *Lyoplenis* F.  
 18352 *Asplenium* F.  
 18353 *Pilea* H. succ.  
 18354 *Peperomia* H.  
 18355 *Begonia* S. pet. w. ant. y.  
 18356 *Eupatorium* T. 20-25' stem erect, br. g. pap. g.w.  
 18357 *Selaginella silvestris* Abund. det. Somers 1978  
 18358 *Passiflora* H. V. no fl.  
 18359 "Cucharo negro" T. 15-20' br. g. ting. with r.  
 18360 moss moist soil  
 18361 hepatic " "  
 18362 fungus " "  
 18363 hepatic " "  
 18364 *Orchid* H. ?  
 18365 *Antennaria* H.  
 18366 *Hydrangea* U. V. to tree tr. ster. fl. pet. p. ant. pur.  
 18367 *comp.* S. elong. br. g. rays. w. cor. tube  
 18368 *Vaccinium* S. 1-2' y. g. lobes.  
 18369 *Antennaria* H. cal. g. cor. w. br. g.  
 18370 *Thibaudia* S. 6-10' spathe y.  
 18371 *Smilax* U. V. cal. r. paler dist. cor. sty. f.  
 18372 *Ranunculus* H. soil r. paler to w. dist. ant. brown  
 18373 hepatic moist soil  
 18374 *Gerodendron* T. small, 10-15' flowering cal. g. cor. tube + lobes y. w.  
 18375 *Juncus* H. 2-4' woody br. g. rays. w. tube y.  
 18376 *Quercus* T. 15-20' stem erect, flowers  
 18377 *Bouena* H. V. br. g. rays. w. tube y.  
 18378 *Protea?* U. V. closely twining  
 18379 *Phoradendron* E. S. or 18378 fr. w.

Jan. 26 dense forest above La Baja

2800-  
3000

3

24

1

.

ant. pur.

sty. f.  
ant. brown27 scrubby slopes of Jarano de las  
Coloradas3000-  
3500

24

y. w. pet. y. g. dist. pur. spotted in near apex

3



- 18380 *Hypericum* S 2-3' pet. y.  
 18381 *Monarda* S 4-5' pet. deep b.  
 18382 *comp.* H 2-2½' br. q. w. cor. tube + lobes q. w.  
 18383 *Vaccinium* S 3-6' cor. w. p. ting. fr. q.  
 18384 *Brunellia??* T 50-60' fr. n.  
 18385 *orchid* H. terr.  
 18386 *Paspalum* H.  
 18387 *orchid* E. H.  
 18388 *Erodium* H.  
 18389 *Miconia* S 12-15' pet. w.  
 18390 *(eric ?)* T 12-15' cal. q. ting. with deep r. fil. p. ant. y.  
 18391 *Aragoa* S 1-2' cal. q. pet. w.  
 18392 *Willemannia* T 25-35'  
 18393 *Eupatorium* S 1-3' br. q. cor. tube q. prox. fur. dist. lobes w. tr. p.  
 18394 *lichen* on tree trunk  
 18395 *grass "etamo real"* H. (Fernedy used by old people)  
 18396 *Eupatorium* S 6-10' br. q. cor. tube q. lobes fin.  
 18397 *Cassia* S or small T. 10-15' pet. br. y.  
 18398 *Passiflora suberosa* H. V.  
 18399 *Galium* H. pro. ← fr. q. w. br. dark q. rays w. tubex. q. cor. lobes y.  
 18400 *comp.* H.  
 18401 *"* H.  
 18402 *comp.* H. br. q. ting with pur. rays w. cor. tube y. q. lobes y.  
 18403 *(indist)* S 1-1½' pet. p. ant. y.  
 18404 *Hypericum* S ½-1½' pet. y.  
 18405 *Comp. ?* S ± 1'  
 18406 *Carex* H.  
 18407 *gramineum* H. pres. pet. pale p.  
 18408 *Elaphoglossum* F.  
 18409 *Alchemilla* H.  
 18410 *grass* H.  
 18411 *Alchemilla* H.  
 18412 *Alchemilla* H.

Jan. 27. scrubby slopes of Par. de las Coloradas

3000-  
3500

Paramillo, Par. de las Coloradas

3800

3700-  
3900

g-6

pet. rich p. paler prox.

28 clearing vic. La Baja

2600-  
2700

thickets  
27. Paramo de las Coloradas

2300

3900-  
4100



18413	<i>Urethophyllum</i>	S. 6'-1'	cor. w. faintly tinged with b.
18414	<i>Vaccinium</i>	S. prostrate	cr. r.
18415	"	S. ± 1'	cor. w. ting with p.
18416	grass	H.	
18417	scroph.	H. pro.	
18418	<i>Vaccinium</i>	S. 1-2'	cor. w.
18419	<i>Fycopodium</i>	F.	
18420	comp.	H.	br. q. rays pur. cor. tube y. lobes y.
18421	<i>Eupatorium</i>	S. 3-4'	br. q. cor. tube q. w. lobes p.
18422	<i>Azorella</i>	H. pro.	
18423	<i>Melast.</i>	S. 3-6'	
18424	<i>Plantago</i>	H.	
18425	<i>Eupetelia</i>	H.	br. pale q. rays y. cor. tube q. y.
18426	<i>Nalecia</i>	H.	sep. q. cor. tube cream w. lining with q. at lobes
18427	<i>Cestiteja</i>	H.	br. r.
18428	<i>Asplenium</i>	F.	
18429	<i>Senecio</i>	S. 5-10'	br. pale q. cor. tube y. lobes y.
18430	comp.	H.	br. greyish q. rays w. cor. tube q. y.
18431	grass	H.	
18432	(Ed.) <i>Euphatorium</i>	H.	
18433	<i>Juncosmia</i>	F. ± 1'	pet. y
18434		S. ± 1'	
18435	<i>Fycopodium</i>	F.	
18436	grass	H.	
18437	comp.	H.	br. q. pap. greyish
18438	<i>Acaena</i>	H.	
18439	comp.	H.	br. q. rays w. strip with p. cor. tube y. lobes y.
18440	"	S. ± 1'	br. q. rays w. strip with p. cor. tube y. lobes y.
18441	<i>Melast.</i>	S. 2-3'	pet. w.
18442	<i>Vaccinium</i>	S. 1-2'	cor. w.
18443	comp.	S. 2-4'	br. q. rays w. cor. tube pale q. lobes pale y.
18444	<del>g.</del>	H.	pet. w. strip with deep. w.
18445	<i>Acaena</i>	H.	

Jan. 27. Paramo de las Coladas

3900-  
4100

1

2

1

1

2

1

2

1



- 18446 *Jamesonia*  
 18447 *Galium*  
 18448 grass  
 18449 *Erythroxylum*  
 18450 *Eupatorium*  
 18451 grass  
 18452 *Calceolaria*  
 18453 *Gaultheria*  
 18454 *Lycopodium*  
 18455 "  
 18456 *Werneria*  
 18457 camp.  
 18458 grass.  
 18459 (lob.)  
 18460 camp.  
 18461 grass  
 18462 camp.  
 18463 *Loruaia*  
 18464 *Miconia*  
 18465 *Lycopodium*  
 18466 "  
 18467 *Melast.*  
 18468 *Vaccinium*  
 18469 "  
 18470 *Polylepis*  
 18471 *Rhizactis*  
 18472 lichen  
 18473 ~~Rhizactis~~ "  
 18474 hepatic  
 18475 *Peperomia*  
 18476 *Polypodium*  
 18477 *Polylepis*  
 18478 *Chusquea*

F.  
 H. ~~pet. w.~~ ting. with r.  
 H.  
 H.  
 S.  $\pm 1'$  br. q. cor. tube pale q.  
 lobes p.  
 H.  
 S. 2-5' pet. y.  
 S. 1-2'  
 F.  
 F.  
 H. ray w.  
 S.  $\pm 6''$  semi-proc. sep. greyish  
 H.  
 H.  
 S.  $\pm 6''$  br. q. cor. tube pale q.  
 lobes w.  
 H.  
 S. 2-6' br. q. cor. tube y. q.  
 lobes y.  
 F.  
 S. 6-15' round, pet. w.  
 S. compact, cream  
 F. in crev. of rock  
 H. sep. q. cor. spurs. w.  
 lobes q. w.  
 S.  $\pm 1'$  pet. y.  
 S.  $\pm 1'$  fr. blue  
 S. 1-2' fr. reddish.  
 T. 15-20'  
 H.  
 on rocks  
 moist soil  
 "  
 "  
 E. H.  
 F. sp.  
 W. U. pet. w. sep. q.  
 F.

Jan. 27 Paramo de las Coloradas

3900-  
4100

2

Paramullo, Par. de las Coloradas

3700-  
3900



- 18479 grass.  
18480 orchid  
18481 lichen  
18482 moss  
18483 *Juncus*  
18484 *comp.*  
18485 *Viola*  
18486 *Viola*  
18487 grass  
18488 *Polypodium*  
18489 "  
18490 *Solanum*  
18491 *Epidendrum*  
18492 *Boueria*  
18493 *Calceolana*  
18494 *Solanum*  
18495 *Asplenium dissectum*  
18496 (lob.)  
18497 *Bromelia*  
18498 *Elaphoglossum*  
18499 orchid  
+ 18500 *Stemodia*  
18501 *Passiflora*  
18502 (leg.) *Vicia*  
18503 *Lupinus*  
18504 orchid  
18505 orchid  
18506 *Odontosora*  
18507 *Asplenium*  
18508 lichen  
18509 *Asplenium*  
18510 *Polypodium*  
18511 "
- H.  
H. terr. fr. g.  
at tree trunks  
on decaying wood  
H.  
H. br. g. pur. ting. rap. w.  
col. tube g. y. lobes y.  
H. pros. sep. g.  
H. moist  
H. soil  
H. bran. drooping,  
semi-pro.  
F. crev. of rock  
F. "  
H. bran. pros. & elong. pet. w. ant. y.  
to 3-4'  
H. terr. 5 sep. yellowish, p. ting  
tube rich p.  
sep. y. g. ting. at apex out.  
H. U. pur. spot. in  
H. 2-4' pet. y.  
H. 2-4' woody  
below.  
F.  
H. cal. g. ting. with pur. pet. deep.  
H. blue, blackish, ant. y.  
F. rocky banks  
H. " " fr. g.  
F. long 1' l. horizontal  
to thick.  
H. U.  
H. U. pet. blue.  
H. U. cal. g. feel l. y. stripe in center.  
H. wings b. star. g. w.  
tube g. sep. y.  
H. 3-5' tube g. sep. y.  
F.  
F.  
rocky soil  
F. crev. of rock  
F. "

Jan. 27. Paramillo, Par. de las  
Coloradas

3700  
3900

scrubby slopes of Par. de  
las Coloradas

2000-  
3500

clearing vic California  
30 ~~thicket~~ borders of stream "

2000-  
2100

29' thickets along Rio de la Baja,  
above La Baja  
pet. g. y. prox. y. dist.  
rocky open hillsides, southern  
slope of Paramo de Roversal

1300m

3000-  
3300

L-1E

3300-  
3800

Paramillo, Par. de Roversal

3800-  
4100



- 18512 *Peperomia*  
 18513 *Hydrocotyle*  
 18514 *Calceolaria*  
 18515 *Castilleja*  
 18516 *Asplenium*  
 18517 *Elaphoglossum*  
 18518 *Polypodium*  
 18519 *Hydrocotyle*  
 18520 sedge  
 18521 *Salvia*  
 18522 *Orobanchus*  
 18523 *Cestrum*  
 18524 *Eupatorium*  
 18525 *Alchemilla*  
 18526 *Eupatorium*  
 18527 *Chilanthus*  
 18528 *Carex*  
 18529 *Acaena*  
 18530 *Phoradendron*  
 18531 *Cardamine*  
 18532 (lob.)  
 18533 *Miconia*  
 18534 camp.  
 18535 *Synedrella*  
 18536 ?  
 18537 *Melastoma*  
 18538 geranium  
 18539 *Alchemilla*  
 18540 *Botrychium*  
 18541 (rubel.)  
 18542 camp.  
 18543 grass  
 18544 (lay)

- H.  
 H. pro.  
 S. 2-6' pet. y  
 H.  
 F.  
 F. over of rock  
 F.  
 H.  
 H.  
 H. bran semi-  
 H. ± 1' sep. g. p. ting. pet. p.  
 S. 2-8' cal. y. cor. tube g. prox.  
 S. 1-3' pink. duct. lobes y.  
 lobes bluish w. sty. w.  
 H.  
 H. woody below long. tube y. g.  
 lobes w.  
 F.  
 H.  
 H.  
 E. S.  
 H. pet. w.  
 H.  
 S. 3-10' compact pet. w.  
 S. 3-5' long. to pur. cor. tube  
 gnath. lobes & sty. w.  
 H. fr. g. becoming darker  
 H. pro.  
 S. 8-12' pet. deep. r.  
 H. pet. p.  
 H.  
 F.  
 H. 2-5'  
 H. fr. g. tube y. g.  
 lobes y.  
 H.  
 H. v. pet. deep. b.

Jan. 29 Paramillo Par. de Roraima

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~~Phy~~







18578	<i>Acaena</i>	H.	
18579	?	H.	
18580	<i>Hypnaceum</i>	S. $\pm 2'$	pet. y.
18581	<i>Castilleja</i>	H. $\pm 1'$	br. r. ting. with g.
18582	comp.	H. 2-3'	br. g. pappus grayish w.
18583	moss	on decaying wood	
18584	<i>Gentiana scheidtiana</i>	H.	cor. y. w.
18585	moss	moist soil	
18586	"	"	
18587	lichen	rocky soil	
18588	moss	decaying wood	
18589	fungus	"	
18590	lichen	on rocks	
18591	"	moist soil	
18592	"	"	
18593	"	on rocks	
18594	"	"	
18595	"	"	
18596	"	"	
18597	hepatic	moist soil	
18598	"	"	
18599	<i>Passiflora</i>	H. U.	no fl.
18600	comp.	S. $\pm 1'$	br. g. pur. ting. pap. w.
18601	<i>Vaccinium</i>	S. 1-2'	cor. w.
18602	comp.	S. $\pm 1'$	pap. w.
18603	<i>Bauera</i>	H. U.	sp. r. ant. c. in. pet. y. r.
18604	comp.	S. 3-5'	pur. spot. in. ant. f.
18605	comp.	S. 2-6'	br. g. pap. y. cor. tube
18606	<i>Thibaudia</i>	S. 8-10'	y. g. lobes y. tube y. g.
18607	<i>Elephantopus</i>	F.	cor. br. r.
18608	<i>Polypodium</i>	F.	on boulders
18609	<i>Raietia</i>	H.	pet. y.
18610	<i>Viola</i>	H. U.	pro.

Jan. 29. Paramillo, Par. de Romeral

3800-  
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streak in center out  
fil. f.



18611	<i>Louania</i>	F.	
18612	<i>Ptyopteris</i>	F.	
18613	"	F.	
18614	<i>Hymenophyllum</i>	F.	
18615	moss		on decaying wood
18616	"		moist soil.
18617	<i>Jamesonia</i>	F.	
18618	caup.	S. 1-3'	br. q. pap. w.
18619	<i>Espeletia</i>	H.	
18620	orchid	H. terr.	tube g. to y. dist. sep. y.
18621	" <i>Jopuldia</i>	H.	br. (2) g. y.
18622	caup.	H.	br. g. - pur. twig, ray. pur.
18623	<i>Castilleja</i>	H.	cor. tube y. g. lobes y.
18624	<i>Espeletia</i>	H.	
18625	<i>Tycopodium</i>	F.	
18626	<i>Hypericum</i>	S. 2-4'	pet. y.
18627	<i>Juncus</i>	H.	
18628	caup.	S. 1'	br. g. - pur. twig - pap. w.
18629	<i>Castilleja</i>	H.	br. r.
18630	<i>Bartsia</i>	H.	pet. pur, pale pur.
18631	<i>Hypericum</i>	H.	
18632	<i>Vaccinium</i> <sup>low</sup>	S. ± 1'	fr. r.
18633	<i>Bernettia</i>	S. 6"-1'	fr. pur, twig with w.
18634	caup.	S. 1-2'	ray. w.
18635	<i>Espeletia</i>	H.	
18636	<i>Vaccinium</i>	H.	cor. rich p.
18637	grass	H. stem	woody
18638	caup.	H.	ray. w.
18639	<i>Bartsia</i>	H.	cal. (3) g. pur. twig.
18640	<i>Eryngium</i>	H.	pet. (3) p.
18641	<i>Melast.</i>	H.	pet. + st. w.
18642	<i>Alchemilla</i>	H.	
18643	caup.	H.	ray. w. cor. tube pale y. lobes y.

Jan. <sup>30</sup>/<sub>29</sub> Paramillo, Par. de Rómeral

3800-  
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Paramo de Rómeral  
(dept. Norte del Santander)

3800-  
4200

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18644	<i>Heliconia</i>	H.	sep. g. cor. w. ting. with g.
18645	<i>Castilleja</i>	S. 1-1'	br. (?) r.
18646	<i>Gentiana</i>	H.	cor. pet. w. streaked with pur.
18647	comp.	H.	
18648	<i>geranium</i>	H.	pet. p.
18649	grass	H.	
18650	comp.	H.	rays w. ting. with blue cor. tube g. y. lobes y.
18651	<i>Plantago</i>	H.	
18652	<i>Gentiana</i>	H.	cal. & pet. g. cal. & cor. g. br. g. to pur.
18653	comp.	H.	
18654	<i>Plantago</i>	H.	
18655	<i>Eupatorium</i>	S. 1-3'	cor. tube w. lobes pur. sty. w.
18656	<i>Ureinanassa</i>	small T.	pet. g. w.
18657	<i>Sipagynelium</i>	H.	pet. y.
18658	<i>Jamesonia</i>	F.	
18659	<i>Stachys</i>	H.	cal. deep pur. cor. tube + lobes deep blue
18660	comp.	S. 3-5'	cor. tube g. y. lobes y.
18661	<i>Phyllactis</i>	H.	cor. tube g. w. lobes w.
18662	<i>Lycopodium</i>	F.	
18663	comp.	H.	br. g. cor. tube y. w. lobes + sty. w.
18664	comp.	H.	br. g. cor. tube pale g. lobes blue
18665	<i>Heliconia</i>	H.	sep. g. cor. g. w. cor. tube + lobes g. w.
18666	comp.	H.	ray y. cor. tube g. y. lobes y.
18667	<i>Motholaena</i>	F.	
18668	comp.	H.	br. g. edged with pur. rays rich p. or w.
18669	<i>Bauhinia</i>	H. U.	sep. g. o. in prox. pet. o. r. fil. pale y.
18670	"	H. U.	sep. o. r. ting. out, greenish in center out, pur.
18671	<i>Claphoglossum</i>	F.	
18672	"	F.	
18673	"	F.	
18674	<i>Lycopodium</i>	F.	
18675	"	F.	
18676	grass.	H.	

Jan. 38 Paramo de Raverol  
(Santander del Norte)

3800-  
4200

cor. tube pale g. lobes y. ting. at apex with r. stripe in center out and brown pur. at apex out. pet. o. r. ting. dist. with r. stripe spotted w. ant. green, fil. pale y.

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- 18677 *Orobatus* S. 1-3' lyan. sep. deep. r. pet. rich p.  
 18678 *Odontosoria* F.  
 18679 grass H. Stem + woody  
 18680 *Oreopanax* T. 10-12' stem erect.  
 18681 *Sphacel* S. 2-3'  
 18682 *Lycopodium* F.  
 18683 *Camp.* S. 1-2½' cor. tube y. q. lobes y.  
 18684 *Gaultheria* S. 4-6' cal. q. pet. w. ant. x. sty. w.  
 18685 *Vaccinium* S. 11' cor. br. r.  
 18686 *Orchid* H. Terr.  
 18687 *Oreopanax* T. 15-20'  
 18688 *Halimia* H. sep. q. cor. q. sep. w. q. ting.  
 18689 *Bromelia* H.  
 18690 *Arenaria* H. pro. sep. q. pet. w.  
 18691 (lab.) H. cor. tube rich p. pet. rich p. w. in. pro.  
 18692 *Ribes* H. S. 3-5  
 18693 *Umb.* H.  
 18694 (leg) *Lupinus* H. ped. per. at edge w. at center prox. stem. w. prox. deep. per. dist.  
 18695 *Camp.* S. 1-2 5-9 ft.  
 18696 grass. H.  
 18697 *Lichen* on rocks  
 18698 *moss* moist soil  
 18699 *Funus* " banks  
 18700 *Lichen* on rocks  
 18701 *orchid* H. ep. sep. pale y. q. br. q.  
 18702 *Lycopodium* F.  
 18703 *Elaphoglossum* F.  
 18704 *Lycopodium* F.  
 18705 *Polypodium* F.  
 18706 " F.  
 18707 *hepatic* moist banks  
 18708 " " pet. br. b.  
 18709 *Lupinus* H.

Jan. 30. Paramos de Raverat  
(Sant. de Norte)

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Dept. Santa Rosa  
walls of rocky gorge, southern  
slopes of Par. de Raverat

± 3800m.

2

31. rocky open hillides  
Paramillo Par. de Raverat  
southern slope, Par. de Raverat

± 3800m.  
3300m.  
3800



- 18710 orchid  
 18711 Solanum  
 18712 Castilleja  
 18713 comp.  
 18714 (lob.)  
 18715 Rubus  
 18716 Hypericum  
 18717 Eupatorium  
 18718 "  
 18719 Urtica  
 18720 orchid.  
 18721 (syncl.) "granulata"  
 18722 orchid  
 18723 Peperomia  
 18724 orchid  
 18725 Polypodium  
 18726 orchid  
 18727 Escallonia  
 18728 lichen  
 18729 Polypodium  
 18730 Solanum  
 18731 "  
 18732 (lab.)  
 18733 geranium  
 18734 Trifolium  
 18735 Oenothera  
 18736 Clusia  
 18737 orchid  
 18738 Olebunella  
 18739 Polypodium  
 18740 lichen  
 18741 moss  
 18742 "
- H. terr. tube g. sep. y.  
 S. 6-10' pet. w. ant. y.  
 H. 12' woody at base l.r. r.  
 S. 3-4' cor. tube pale g. lobes w.  
 H. l.r. g.  
 U. V. pet. p.  
 S. 5-7' stem pet. y.  
 H. 3/4" diam. l.r. g. edged with pur. lobes & sty. b.  
 H. cor. tube pale g. l.r. g. car. tube & sty. w.  
 H. 2-4' woody pale g. lobes & sty. w.  
 H. at base  
 H. U.  
 H. terr. fr. g.  
 H. 3-6' pet. b. fr. g.  
 H. terr. fr. g.  
 H. ep.  
 H. terr. sep. y.  
 F.  
 H. terr. fr. g.  
 S. (?) pet. w.  
 on rocks  
 F.  
 H. 12 can. pet. b. ant. y.  
 H. 3-4' bran. pet. w. ant. y.  
 H. elong. sep. g. cor. b.  
 H. pro. pet. p.  
 H. bran. pet. y.  
 H. pro. cal. y. striped with r.  
 H. 12-20' fully erect 1.5" diam. pet. y. br. r.  
 T. ep. sep. y. tube gray.  
 H. cal. g.  
 F.  
 on rocks  
 " "  
 on wood

Jan. 31. rocky open hillside, southern  
 slopes Par. de Reneral  
 Paramillo, Par. de Reneral

3300-  
 3800

± 3800

shaded banks, upper Rio de  
 La Baja

± 3300 2

open hillside, western slopes  
 of Par. de las Puente,  
 vic. La Baja.

± 3300

~~± 3300~~

oak forest, ~~~~~

open hillside, ~~~~~



*dioplosis*

7.			
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ON

probably should be  
Pacz enc 4/19/50

± 3200  
2600 -  
3000

$\pm 3200$

1941



- 18776 orchid  
 18777 *Tephrosium*  
 18778 *Bomarea*  
 18779 comp  
 18780 *Polypodium*  
 18781 (umbel.)  
 18782 *Tillandsia*  
 18783 *Asplenium salicifolium*  
 18784 *Thilaudia*  
 18785  
 18786 *Valeriana*  
 18787 comp.  
 18788 *Peperomia*  
 18789 *Tephrosium*  
 18790 orchid  
 18791 *Thilaudia*  
 18792 grass  
 18793 *Bomarea*  
 18794 *Thilaudia*  
 18795 *Pilea*  
 18796 comp.  
 18797 *Pilea*  
 18798 *Calceolaria*  
 18799 *Calceolaria*  
 18800 *Eutropogon*  
 18801 *Gnaphalium*  
 18802 *Cystopteris*  
 18803 *Viola*  
 18804 *Arenaria*  
 18805 *Fragaria*  
 18806 orchid  
 18807 *Solanum*  
 18808 *Pilea*

- H. terr. lvs.  
 H. U. cor. tube r. ting. with o. dist.  
 H. U. sep. g. at tip.  
 H. U. sep. r. lvs. p. o. in. few. pur. spots at apex in. apex out g. ting.  
 H. U. pet. y. prox. g. dist. pur. - spot. in near apex. faint r. stripes in center out.  
 H. U. to 10' g.  
 F.  
 H. coarse sep. g. pet. y. g. fr. g.  
 H. 10-12'  
 H.  
 F.  
 S. bran. elong. cal. g. cor. red, g. dist.  
 S. pet. lvs. y. sty. g.  
 H.  
 W. U. or. S. with pet. w.  
 W. U. scan. bran. lvs. g. ped. g. w.  
 H. 2-3' slender.  
 H.  
 H. U. lvs. g. cor. tube r. lobes - ting. sep. g. at apex.  
 H. U. pet. lvs. r. fil. pur. and. greyish green. sty. + stig. pale y.  
 H. terr. fr. g.  
 S. lvs. drooping cal. cream w. r. ting. cor. tube r. w. dist.  
 S. ant. o. to brown, sty. brown.  
 H.  
 H. U. fl. lvs. o.  
 S. bran. droop. cal. r. cor. r.  
 S. cal. r. paler in.  
 H. succ.  
 S. ?  
 H. succ.  
 H. pro.  
 S. 3-6' pet. y.  
 S. ? cor. lvs. r.  
 H.  
 F.  
 H. U. sep. (?) g. w.  
 H. pro. pet w. ting. with b.  
 H. proliferaus  
 H. sp.  
 S. ? pet. w.  
 H.

Jan. 31 dense forest along Iuehade  
 de Pais

†3200

- 18776  
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- 18809 *Metastema*  
 18810 *camp.*  
 18811 *camp.*  
 18812 *camp.*  
 18813 *Touclutis*  
 18814 *camp.*  
 18815 *Momina*  
 18816 *Myrmec.*  
 18817 *Asplenium*  
 18818 *Equisetum*  
 18819 *Clethra*  
 18820 *Cestrum*  
 18821 *Peperomia*  
 18822 *grass*  
 18823 *Polypodium*  
 18824 *Dryopteris*  
 18825 *Saurauja*  
 18826 *Louana*  
 18827 *Alouwa*  
 18828 *Bouena*  
 18829 *camp.*  
 18830 *Pilea*  
 18831 *hepatic*  
 18832 *moss*  
 18833 *moss*  
 18834 *Polytetum*  
 18835 *moss*  
 18836 *hepatic*  
 18837 *moss*  
 18838 *"*  
 18839 *"*  
 18840 *hepatic*  
 18841 *moss*

T? pet. incl. p.  
 to pur.  
 pap. w.  
 H. coarse br. g. pur. ting.  
 S. 5-7' br. g. pet. tube q. w.  
 lobes w.  
 F.  
 H. coarse. pap. greyish  
 pet. br. b.  
 W. V.  
 T? br. reddish pur.  
 F.  
 F.  
 T. 15-25' fr. g.  
 S. 6-10' br. g. fr. g.  
 droop.  
 E. H.  
 H.  
 F.  
 F.  
 T. 15-20' sp. pale g. pet. w.  
 ant. y.  
 F.  
 H. pet. w. ant. y.  
 H. V. sp. r. ant. g. ting at apex  
 pur. spot in near apex  
 H. coarse r. g. lobes o. y.  
 H. succ. y. g. lobes o. y.  
 H. succ.  
 moist soil.  
 on banks  
 " "  
 " "  
 " "  
 moist soil  
 decaying log  
 moist soil  
 tree trunk  
 moist soil  
 " "  
 " "

Jan. 31. dense forest along Iuelrada  
 de Pais T 3208

c. y. in pur. spot near apex, pet. y. g. at apex,  
 faint r. stripe in center out



- |       |                         |                            |  |
|-------|-------------------------|----------------------------|--|
| 18842 | <i>Passiflora</i>       | H.v.                       | Sep. wh; styles gr.-y                  |
| 18843 | <i>Begonia</i>          | S 3-6', br. dwarfing       | fr. light gr.                          |
| 18844 | <i>Pilea</i>            | S 3-4'                     |  |
| 18845 | <i>Anthurium</i>        | H ter                      | Spadix or-y; spat. gr.                 |
| 18846 | <i>Vernonia</i>         | S elong. br.               | Corosty. rich purp.                    |
| 18847 | <i>Pteris</i>           | H                          |  |
| 18848 | <i>Centropogon</i>      | V woody                    | Cor. red.                              |
| 18849 | <i>Pilea</i>            | H succ.                    | Pls. gr.-wh.                           |
| 18850 | <i>Rub.</i>             | H 2-2.5' woody below       | Cor. wh.                               |
| 18851 | <i>Salvia</i>           | H diffuse                  |  |
| 18852 | <i>Vernonia</i>         | S 3-5'                     | cor. purple<br>Pappus wh.              |
| 18853 | <i>Hydrocotyle</i>      | <del>S 4-6'</del> H repent |  |
| 18854 | <i>Fuchsia</i>          | S 4-6'                     | Calyst. bright red,                    |
| 18855 | <i>Oreocarya</i>        | Caudex subter.             | stip. 2-3'; fl. 1-3'                   |
| 18856 | <i>Centropogon</i>      | S 3-4'                     | Cor. rich pi.                          |
| 18857 | <i>Pilea</i>            | S 8-12' T                  |  |
| 18858 | <i>Miconia</i>          | S 4-8'                     | Pet. wh; anther y                      |
| 18859 | <i>Mimulus</i>          | H 4-6'                     | Pr. wh.                                |
| 18860 | <i>Rub.</i>             | S slender 10-15'           | Pr. gray-weet,                         |
| 18861 | <i>Eupatorium</i>       | S 3-6'                     | Ar. gr.-w. lobes r<br>styles purp.-pi. |
| 18862 | <i>Coccoloba</i>        | H 4-6' prostr.             | Fr. bright blue                        |
| 18863 | <i>Spermacoce</i>       | H diffuse                  | in wh.                                 |
| 18864 | <i>Hep. Trichomanes</i> | On banks                   |  |
| 18865 | <i>Hep.</i>             | " " ?                      |  |
| 18866 | <i>Corp.</i>            | S 3-6'                     | Rays y, florets dark                   |
| 18867 | <i>Eupatorium</i>       | S 3-6' br dwarfing         | All fl. parts wh.                      |
| 18868 | <i>Thibaudia</i>        | S 8-15'                    | Pr. gr.                                |
| 18869 | <i>Viburnum</i>         | S 10-12'                   | Pr. black                              |
| 18870 | <i>Eupatorium</i>       | S 5-7' br dwarfing         | All fl. parts wh.                      |
| 18871 | "                       | S 6-8'                     | Cor. wh.                               |
| 18872 | <i>Thibaudia</i>        | S                          | Cor. red; lobes gr.                    |
| 18873 | <i>Pilea</i>            | S 2-4'                     |  |
| 18874 | ?                       | S 10-15'                   |  |

Feb. 6. thickets vic. California  
8 woods, bet. California & Chanta  
8

*Anthurium coriifolium* N.E.H. det. T. Croat 1950

pappus wh.

plumy; pet. light & dull.

semitransparent  
thickets, vic. Chanta  
Cor. wh., lobes purplish-blue  
open thickets

thickets

2000  
2400  
-2700m.

2000  
-2100m.



- 18875 *Thibaudia* S 6-10' Cor. pi. pure, wh.  
dist. o lobes  
✓ herb  
18876 *Stigmaphyllon* S 6-10' Pet. or. y.  
18877 *Befaria* S 6-10' Cor. rich pi.  
18878 *Polygala* H 1.5-2' Pet. pi., y-g. pet base  
18879 *Succid* S 4-8' Cor's y.  
18880 *Befaria* ? S 2-4'  
18881 *Nicotia* S 6-10'  
18882 *Thibaudia* S epip. on. #18881  
18883 *Thibaudia* S 8-12' Br. wh. pi. tinged  
Cor. white  
18884 *Castilleja* S 1-3' Calyx gr. pure, red.  
dist. o lobes  
18885 *Epidendrum* H ter Fr. wh. pi. tinged  
app light gr., even  
#  
18886 *Grass* T 10-20' Pet. gr. wh.; fil.  
wh. anth.  
18887 *Ursmannia* S 3-6' Fr. gr. pure, app. pi. dist.  
18888 *Thibaudia* S 1-2' Cor. deep pi. pure  
18889 *Stytophyllum* S 1-2' Fr. wh. pi. tinged out  
18890 *Meria* S 4-8' Pet. rich purple, fil.  
wh. anth. pi.  
18891 *Hypericum* S 1-3' Pet. y  
18892 *Stytophyllum* H  
18893 *Nyctis* H prostr. Calyx purple  
18894 *Vaccin* S 6-8' Cor. pi. blue  
18895 *Paepalanthus* H roots 1.5" thick  
heads gray-wh.  
18896 *Solanum* V herb. Cor. wh., anth. y  
18897 ? S 5-8' Pet. y  
18898 *Comp.* S 5-8' Fr. gr. - y.  
18899 *Vaccin* S 3-5' Rays y  
Cor. pi.  
18900 *Dicranopteris* H  
18901 *Nicotia* S 10-15'  
+ 10-12'  
18902 *Theaceae* Fr. gr., shining  
18903 *Myrsineae* S 8-12' Fr. gr.  
H in clumps in swamp  
18904 *Juncus* S 3-6'  
18905 *Sauvasteria* S 3-5' Fr. wms-color  
18906 *Eupatorium* S 3-5' Cor. pi. w. lobes & style  
wh.  
18907 *Piper* S 4-7'  
18908 ? S 6-10' Fr. gr.

Feb. 8 thickets, Vic. Charta

2000 -  
2100 m.

open hillside

y apex

edge of woods

open hillside

edge of woods

swamp



- |       |  |            |  |
|-------|--|------------|--|
| 18909 | Vaccinium                                    | S 3-8'     | Fr. black, lustrous                      |
| 18910 | Moss   | Sec. logs  |  |
| 18911 | Cissus                                       | H ✓        | Pet. y-g.                                |
| 18912 | Eupatorium                                   | S 3-5'     | all fl. pt. wh.                          |
| 18913 | Solanum                                      | S 4-6'     | Cr. w. blue-tinged                       |
| 18914 | Begonia                                      | S 2-4'     | Pet. wh.                                 |
| 18915 | Miconia                                      | S 3-8'     |  |
| 18916 | <del>Cayote</del> Suramia                    | ✓ herb     |  |
| 18917 | Cestrum                                      | ✓ woody    | Cr. purple                               |
| 18918 | Eupatorium                                   | S 8-12'    | Cr. fr. w. lobes o<br>styl. deep pi.     |
| 18919 | Cordia                                       | S 10-15'   | Cr. sp. - wh.                            |
| 18920 | Piper  | S 2-4'     |  |
| 18921 | Rub  | ✓ herb     | Fr. pi. - red                            |
| 18922 | Piper  | S 6-8'     |  |
| 18923 | Carica                                       | T 4-8'     | Fl. tube y-g.                            |
| 18924 | Hirtiopteris                                 | H          |  |
| 18925 | <del>Orthocentrus</del><br><del>Silene</del> | H          | Per. pi. - purp.                         |
| 18926 | Cyathia                                      | H          |  |
| 18927 | Orchid                                       | H ✓        | Seps light y, greenish<br>at base        |
| 18928 | Rubus  | ✓ woody    | Pet. light pi.                           |
| 18929 | Thibaudia                                    | S 2-3'     | Cr. rich pi, lobes pi. - wh.             |
| 18930 | Bromelia                                     | H up 58'   | Per. wh, greenish out                    |
| 18931 | Pleurothallis                                | H epip.    |  |
| 18932 | Bouarea                                      | ✓ herb     | seps red-pi., y-tinged<br>pur. in; rim y |
| 18933 | Anacardium                                   | T 12-20'   | Fr. red-br.                              |
| 18934 | Gaultheria                                   | S 10-12'   | Cr. wh.; fr. wine-c.                     |
| 18935 | Laelia                                       | H ?        | See notes                                |
| 18936 | Utricularia                                  | H          | Cor. y.                                  |
| 18937 | Moss   | Sandy soil |  |
| 18938 | Lichen                                       | Soil       |  |
| 18939 | Moss   | "          |  |
| 18940 | "  | "          |  |
| 18941 | Lichen                                       | On trees   |  |

Feb. 9 edge of woods, Vic. Charta

2100-  
2400 m.

at very margin

oak forest

± 2500 m

18909

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18942	Lichens	Soil	
18943	"	On trees?	
18944	Dep.	" "	
18945	Polypodium	H ter	
18946	Peperomia	H ter	Spikes y-gr.
18947	Comp	V woody	Invol. purple deep.
18948	Bromelia	H epip.	Pappus tan.
18949	Alsophila	T fern	Br. bright red.
18950	Thubaudia	S 10-15'	caud. 3-6' / fr. (incl. st.) 3-6'
18951	Hypoxis	S 8-12'	Ripa fr. black
18952	Gram	H	
18953	Carex	H	
18954	Moraceae	T 15-25'	
18955	Senecio	V woody	Invol. gr. florets deep y
18956	Solanum	S 2-5' br. along	Cor. wh, anthers y
18957	Castilleja	H	Br. & calyx gr. pink, scarlet inside
18958	Cestrum	H S 10-15'	Cor. or-y.
18959	Polypodium	H epip. on old stump	
18960	"	H epip.	
18961	Lathyrus	H 2-7' long	St. pi. - tinged; wings
18962	Dioscorea	H sub	per. g-w
18963	Peperomia	H epip.	
18964	Pilea	H sub, stem	Per. gr. w.
18965	Salvia	H with at base	up to 5' high
18966	Xanthosoma	H ter	calyx pi. cor. pi. - pur.
18967	Fungus	On logs	white.
18968	Pilea	H succ.	
18969	Anthurium	H ter.	spadix g, becoming y.
18970	Marattia	T 20-35'	spathe g. To looking like p. w. at apex
18971	comp.	H. U.	cor. g. w.
18972	(Theaceae)	S 10-15'	
18973	Laclutis	F.	
18974	Begonia	S. 2-5'	sep. g. w.

Feb. 9 Oak forest, Vic. Chanta

± 2500m.

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8 clearing

~~dense wet woods, of Mt. San Vicente~~

best g-w. (clearing ??)

dense wet woods, western slopes of Mt. San Vicente

2500-2700



- |       |                                   |  |
|-------|-----------------------------------|--|
| 18975 | <i>Eugenia</i>                    | S. 8-12'   |
| 18976 | <i>Trichomanes</i>                | F. ep.   |
| 18977 | <i>Hymenophyllum</i>              | F. ep.   |
| 18978 | hepatic                           | associated with fr. & rootstocks of a <i>Hymenophyllum</i> (18977) |
| 18979 | moss                              | decaying logs  |
| 18980 | hepatic                           | moist banks  |
| 18981 | moss                              | decaying log   |
| 18982 | <del>lichen on leaf</del><br>moss | moist log  |
| 18983 | hepatic                           | on tree trunks   |
| 18984 | <i>Piper</i>                      | S. 10-15'  |
| 18985 | orchid                            | H. ep. fr. g.  |
| 18986 | fungus                            | on twigs   |
| 18987 | hepatic                           | on leaves of 18988   |
| 18988 | orchid                            | E.H. fr. g.  |
| 18989 | <i>Lyopteris</i>                  | F.   |
| 18990 | <i>Bromelia</i>                   | H. terr. fr. reddish brown   |
| 18991 | <i>Claploglossum</i>              | F. ep.   |
| 18992 | <i>Melasma</i>                    | H. pro.  |
| 18993 | <i>Polypodium</i>                 | F. rootstock appressed to tree trunks                              |
| 18994 | <i>Tenaxomeria</i>                | S. 8-10'   |
| 18995 | <i>Pleurothallis</i>              | E.H.   |
| 18996 | palux                             | T. 10-12' fr. o.r.   |
| 18997 | <i>Cryptnodes</i>                 | H. terr. per. w.   |
| 18998 | <i>Solanum</i>                    | S. 4-8' cor. w. ant. apparent. y.                                  |
| 18999 | <i>Manania</i>                    | S. 3-5' cor. red p. fil. light p. ant. y. g.                       |
| 19000 | comp.                             | S. 8-10' per. w.   |
| 19001 | Orchid                            | H. terr. Per. y.   |
| 19002 | <i>Senecio</i>                    | V woody cor. sp. wh., ant. y.                                      |
| 19003 | <i>Muhlenbergia</i>               | V woody cor. apparently wh. (inert)                                |
| 19004 | Rubiaceae                         | S 8-12' fr. deep purp.   |
| 19005 | Rubiaceae                         | V woody Calypso  |
| 19006 | <i>Vernonia</i>                   | V herb. Ca. wh., lobes stip  |
| 19007 | Rubiaceae                         | T 12-20' fr. bluish-gray,  |

Feb. 9. dense wet woods,  
western sl. Mt.  
San Vicente

Feb. 1 Rocky hillside, bet. Calif. + Charte  
Dense forest

2000m  
2.700m

purple  
nearly transparent



- 19008 *Peperomia* H<sup>epi</sup>. Spikes gr. wh.  
 19009 *Rapanea* T 15-20' Infl. gr. wh.  
 19010 *Isachne* V herb  
 19011 *Piper* S 4-5' Sps. wh.  
 19012 *Tournefortia* T 15-20' Fls. & fr. wh.  
 19013 *Isachne* V herb.  
 19014 *Asplenium* H ter.  
 19015 *Rubiaceae* H 3-6' woody below Cor. wh., fr. rose-red  
 19016 *Peperomia* H ter. stems & under surface  
 19017 *Begonia* H 8-10' br. Seps wh., anthers y  
 19018 *Centropogon* V woody Cor. rich pi, paler in.  
 19019 *Malpigh.* V woody high climbing Tr. only.  
 19020 *Rubiaceae* V herb Cor. wh., fr. gr.  
 19021 *Pilea* H + succ.  
 19022 *Loasa* H 1-2' straggling bl. spreading Pet. wh.  
 19023 *Psoralea* S 4-10' Pet. deep blue.  
 19024 *Saurauja* S 12-20' Pet. wh.  
 19025 *Comp.* S 4-6' Rays bright y. florets  
 19026 *Shutanthus* S epib. Cor. gr.  
 19027 *Hydrocotyle* H rep. Fl. light gr.  
 19028 *Moss* On damp rocks.  
 19029 *Eupatorium* S 6-10' Cor. & styles wh.  
 19030 *Dicksonia* Tree fern Stipe  $\pm 4'$ , fr.  $\pm 5'$ ;  $\pm 10'$   
 19031 *Passiflora* V herb Bud gr.  
 19032 *Pilea* H succ.  
 19033 *Scleria* H coarse culms & lvs 2-4' long  
 19034 *Rubiaceae* S 3-5'; stem simple below; cor. light  
 19035 *Pteris* N fr. 1.5-3'; stipe  $\pm 2'$   
 19036 *Clavija?* T 10-15'; trunk erect, straight, leafy  
 19037 *Passiflora capsularis* V herb Seps. gr. red, wh. in,  
 19038 *Gnss* H 3-5' drooping Cor. wh., faintly pi.  
 19039 *Thibaudia* S 3-4' Cor. red  
 19040 *Jacobinia* H 1.5-2' Cor. red

Feb. 1 Dense forest, bet. Glif. & Chanta  
 open hillside, Vic. Chanta  
 Woods along stream

2200 m  
 2000 -  
 2200 m.

deep y.

pi. - tinged.  
 pinnae to a side

g. paler at base; fr. black.

on main stem between nodes

Feb. 2  
 fr. 6-angled & thick at  
 open hillside

at apex



19041	Eupatorium	S 8-12'	Cor. wh., lobes rusty. Light pi.
19042	?	H or S? branch	hanging over cliff;
19043	Monnina	S erect, 5-8'	Pet. blue-imp.
19044	Passiflora capsularis	V herb	Buds gr.
19045	Habenaria	H ter.	Sep. wh., col. light g.
19046	Ficus	T 30-40'	
19047	Senecio	S 6-10'	Reap bright y; heads
19048	?	T?	<del>See notes</del>
19049	?	S 10-15'	Tube gr., lobes pi.; at
19050	Passiflora "pubera"	S 5-10'	stam. wh., anther. at
19051	"	S 8-10'	fr. flattened at apex, slightly
19052	Rosaceae	T 12-20'	T 12-20', in full
19053	Quercus	S 15-20'	Pet. wh.
19054	Joumeffortia	V woody	Cor. gr. wh.; fr. wh.
19055	?	T 30-40'	Fruit up to 2" diam.
19056	Ruprechtia	T 12-15'; stem erect, unbranched	below; fr. light gr.
19057	Cordia	S 4-5'	Cor. gr. - wh.
19058	Serjania	V herb.	Fr. light gr.
19059	Ruprechtia	T 20-25'	Fr. pi.
19060	Comp.	H 4-6'	Pappus gr. - wh.
19061	Passiflora "pubera"	S 8-12'	
19062	Passiflora coriacea	H herb	
19063	"Ciba"	T 50-70'	
19064	Acacia	T 60-100'	Fr. black
19065	?	T 30-35'	Fls. gr. wh.
19066	Bauhinia	T 15-20', spreading crown; pet. wh.	
19067	Petraca	S 6-10'	Ca. bright blue
19068	Jasminum	S 3-10', br.	Cor. wh.
19069	Jasminum	S 8-10', br.	Cor. wh.
19070	Psychotria	S 10-15'	
19071	moss	moist soil	
19072	hepatic	"	
19073	"	decaying wood	

Feb. 2	Open hillside, vic. Chanta	2000-2700 m.	110001
	pet. gr., clamber prox.		110002
			110003
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- 19074 moss soil on rotten log  
 19075 hepatic decaying wood.  
 19076 moss " "  
 19077 palm T. trunk 8' frond 6-10' stipe 2-4" di  
 19078 *Quercus* T. 40-70'  
 19079 *Papaya* S. 8-12' cor. g. w.  
 19080 *Momonga* S. 8-10' pet. intense blue  
 19081 *Miconia* S. 4-8' pet. w. ~~cor.~~ sta. g.  
 19082 comp. S. 2-3' pap. light p.  
 19083 *Befania* S. 1-2' cor. t. fil. p. ant. g. y.  
 19084 comp. T. 12-15' sty. w. pap. w.  
 19085 *Andropogon* H. 4-6' erect  
 19086 *Maplealeum* H. 2-3' bran. heads y. g.  
 19087 *Myrica* S. 10-15' fr. ashy grey  
 19088 *Inga* T. 25-40' pet. g. fil. w.  
 19089 *Solanum* S. 6-10' ant. y. g. pet. w.  
 19090 *Pellaea* F. among loose rocks  
 19091 *Zibaudia* S. 8-12' fr. g. w. to pinkish  
 19092 *Cestrum* S. 10-12' fr. o. to light r.  
 19093 *Piper* S. 6-8'  
 19094 *Buddleia* T. 10-15' cor. o. y.  
 19095 (lab.) S. 3-4' bran. cor. w.  
 19096 *Sellaginella* diffusa (Presl) Spring det. Somers 1978 F. moist soil  
 19097 *Pilea* H. 2-3' bran. elong.  
 19098 *Viburnum* S. 10-15' fr. dark blue  
 19099 *Zibaudia* S. 8-12' bran.  
 19100 (rub.) S. 12-15'  
 19101 *Sipanea* S. 10-12'  
 19102 *Piper* S. 3-5'  
 19103 *Saurauja* S. 10-12' pet. w. star y.  
 19104 *Passiflora ligularis* H. W. pet. w. cor. fil. g. w. & w. banded  
 19105 lichen moist soil  
 19106 " "

7b. 9. dense wet woods, w. st. Mt. San Vicente 25-3700

oak forest vic. Chanta ± 2500

~~thickets~~ open hillside 21-2400

10. thickets

open hillside  
thickets



- 19107 *Eupatorium* S 4-8' cor. & sty. light p.  
 19108 ~~Alnus~~ *Ossaea* S 2-6' pet. rich p.  
 19109 *Chaetochloa* H  
 19110 *Solanum* S 6-8' cor. w.  
 19111 *Lichsonia* H F caudex sublt. sty. 4-6' ant. y. prox. g. dist.  
 19112 *Xanthosoma* H stems 2-3' fr. 3-6' steep pur.  
 19113 *Claviya* H 3" diam.  
 19114 *Cissampelos* T 10-15' trunk + 2" dia.  
 19115 *Camp.* H. U. fruit direct. from trunk  
 19116 *Eupatorium* S 6-10' rays. y.  
 19117 ~~Eupatorium~~ *Engelmann* S 8-10' cor. g. w. lobes & sty. p.  
 19118 *Mikania* H 2-4' ray pinkish blue  
 19119 *Pilea* H. U. cor. light sp. to w.  
 19120 *Psoralea* S. gray. elong.  
 19121 *Cifera* S 6-8' pet. b.  
 19122 *Sonchus* H coarse pet. rich p.  
 19123 *Euphorbia* H coarse cor. y.  
 19124 (umbel.) H coarse br. r. prox. in.  
 19125 *Dryopteris* H succ. pet. w.  
 19126 *Rebunium* F  
 19127 grass H. V. br. o. to r.  
 19128 *Asplenium* F  
 19129 *Yucca* H coarse fls. y. wh.  
 19130 *Polypodium* S 5-10' Rays y.  
 19131 *Struthanthus* S sepals with along. br.  
 19132 *Salix* T 3-5' br. drooping  
 19133 *Struthanthus* S sepals with along. br. (fruit of 19131? = or. red)  
 19134 *Gouania* V herb. fr. red.  
 19135 *Journefortia* S 8' br. Fr. wh. cor. g. - wh.  
 19136 *Cestrum* V woody Ripe fr. red.  
 19137 *Begonia* S 1-2' semiprostr. Sfr. gr.  
 19138 *Pilea* H succ. stem fr. wh. br. wh.  
 19139 *Rubiaceae* V herb. fr. deep wine-color

Feb 18 thickets

vic. Charta

21-2400

open hillside

thickets

open hillside

thicket

dense woods, southern slope Mt. San Martín

2300-2500m



- 19140 *Myrcia*  
~~Rubiaceae~~ S 10-15' Pr. becoming reddish from  
~~Canary yellow~~  
19141 *Coccoloba* V woody Cor. gr.-wh.  
19142 *Oxalis* H succ. Pet. y., red striped.  
19143 *Psychotria* S 15-20' Br. inf. y.; cor. gr.  
19144 *Eupatorium* S 12-20' Cor. deep pi; sty. light  
~~Solanum~~ Cand. subt.; stipe 2-3'; fr. 3-4'  
19145 *Marattia* S 2-4'  
19146 *Piper* H fr. elong.  
19147 *Rubiaceae* H to 6'  
19148 *Asplenium* H ter.  
19149 *Trichomanes* Climbing on tree trunks, closely appressed  
19150 *Siparuna* S 8-15'  
19151 *Hep.* On 19150  
19152 *Meriania* T 20-30' Pet. rich pi., anthers  
19153 *Trichomanes* On trees purpl., wh. dist.  
19154 *Rubiaceae* S 12-15'  
19155 *Odontoglossum* H epip.  
19156 *Rubiaceae* T 15-20' Buds gr.; cor. gr. wh.  
19157 *Lioscorea* V woody Pr. glaucous  
19158 *Carludovica* Trunk slender, along tree trunks, to 15' high  
19159 *Columnnea* H ter, fr. elong. up to 3'  
19160 *Piper*  
19161 *Trichomanes* H epip.  
19162 *Trichomanes* H epip.  
19163 *Peperomia* H epip.  
19164 *Pilea* H succ. Pet. gr.-wh.  
19165 *Polypodium* H epip.  
19166 *Peperomia* H epip.  
19167 *Rubiaceae* S 12-15' Cor. buds gr. wh.  
19168 *Diploteris* Caudr 1-2', semi-erect; stipe  $\pm$  3' fr. 4-5'  
19169 *Solanum* S 6-10' Cor. wh., anthers y.  
19170 *Stelis* H epip. fr. gr.  
19171 *Orchid* H epip. fr. gr.  
19172 *Hep.* On 19172

Feb. 10 dense woods, southern slopes Mt. Martin 2300-2500 m.

base, brown-red, lobes gr.  
pi.

01101

11101

31101

71101

11105

71101

91101

71101

81101

41101

06101

12101

32101

22101

12101

22101

32101

52101

82101

42101

02101

12101

32101

62101

12101

22101

32101

52101

82101

12101

01101

12101

12101



- 19173 *Marattia* Cand. 2-5', erect; stipe 3-4', fr. 4-6' long  
 19174 *Pteris mucronata* B. & H. H 2-4', fr. J  
 19175 *Polypodium* Nepip.  
 19176 *Diplazium* Cand. subt, stipe 3-5', fr. 3-4'  
 19177 *Sipanea* slender, 15-18'; fr. brownish red.  
 19178 *Brachistrium* S 8-15'  
 19179 "*Pteris*" Cand. subt., stipe 3-5', fr.  
 19180 *Anthurium* Nepip.  
 19181 *Piper* S 6-8'  
 19182 *Odontoglossum* Nepip. 3 sep. brown, tipped with y.  
 19183 *Trichomanes* 2 sep. br.-banded brown leaf.  
 19184 *Orchid* Appressed to tree trunk.  
 19185 *Peperomia* Nepip. See notes  
 19186 *Elaphoglossum* Nepip.  
 19187 *Rub.* S 12-15' Cor. lobes wh.  
 19188 *Marattia* Cand. 2-3', erect, stipe 2-4'; fr.  
 19189 *Trichomanes* 3-5'  
 19190 *Erythrocles* H epip.  
 19191 *Asplenium* H ter. Per. wh., gr. tinged apex  
 19192 *Hep.* On trees  
 19193 *Moss* Sec. log  
 19194 *"* Moist bank  
 19195 *Lichen* On roots of epip. orchid  
 19196 *Canavalia* H 3-4' br. cal. g. w., per. ting at  
 19197 *Tillandsia* H. elong. & droop. best apex pet. w.  
 19198 *Lycopodium* Nepip.  
 19199 *Polypodium* H epip. dependent  
 19200 *Polypodium* H epip.  
 19201 *Pilea* H ter.  
 19202 *Polypodium* Nepip.  
 19203 *Rubiacinae* H. Cor. wh.  
 19204 *eg. Chloris* H 1-3' br. elong. Sep. deep purp.  
 19205 *Centropogon* H 2-3' Pet. ~~deep~~ purp.  
 Cor. red

Feb. 10 dense woods, <sup>Vic Charta</sup> southern slopes Mt. Martin <sup>23-2500 m.</sup>

2-4'

A. R. Cor. petersen, E. B. det T. Croat 1990

white upper, y. marg.; lip, purple-brown, col. wh., <sup>appendage</sup> purple

Open hillside, Vic. Charta  
 Thickets

2100 -  
 2400 m.



19206	<i>Equisetum</i>	H	
19207	<i>Borreria</i>	H fr. semi prostrate	Cor. wh.
19208	<i>Solanum</i>	T 10-12'	Cor. wh.; anthers dark gr.
19209	<i>Waltheria</i>	S 2-3'	Pet. y.
19210	<i>Polygala</i>	H	Sep. y. to dark purp.
19211	<i>Trichomanes</i>	On trees	Pet. pi., y at base
19212	<i>Pleurothallis</i>	H epiphytic	Fr. gr.
19213	Lichen	on trees	
19214	Hep	On Piper	
19215	"	On trees	
19216	"	" "	
19217	<i>Mercurialis</i>	" soil	
19218	Moss	" "	
19219	"	" dec. logs	
19220	"	" " "	
19221	<i>Begonia</i>	S 6-8'	Seps. wh. anthers y.
19222	<i>Eupatorium</i>	S 2-6', fr. drooping	cor. gr.-w., lobes 5-6
19223	<i>Feuca</i>	T 15-25'	fr. sty. dark purp.
19224	<i>Cassia</i>	T 8-20'	Seps. gr.-y.
19225	<i>Miconia</i>	S 6-10'	Pets y.
19226	<i>Viburnum</i>	T 10-18'	Pet. wh.
19227	<i>Conaria</i>	S 6-10'	Fr. black fr. deep purp.
19228	<i>Lippia</i>	T 15-25'	Seps. gr. to purp.
19229	<i>Rapanea</i>	T 5-10'	Cor. gr.-wh.
19230	<i>Miconia</i>	S 8-12'	Cor. gr.-wh.
19231	<i>Monnina</i>	T 12-15'	Fr. blue
19232	<i>Caopia</i>	T 8-15'	Pet. deep blue
19233	<i>Dioclea</i>	V herb.	Pet. y.-g. longitudinal red-streaked
19234	<i>Passiflora</i>	V herb. twining	Fr. brownish
19235	<i>Miconia</i>	S 6-8'	Seps. purp. red wh. in pet. wh.; cor. y.-g. purp.
19236	<i>Struthanthus</i>	V woody epiphytic	Pet. wh., fr. tinged; filaments
19237	<i>Eupatorium</i>	S 4-10'	Pet. wh., anthers wh.
19238	<i>Cordia</i> sp.		cor. wh., faintly pi. tinged styles deeper red

Feb. 10 Open hillside, Vic. Chanta

2100-  
2400

dense woods, vic. Chanta southern slope Mt. Martin

2300-  
2500m

11 thickets along stream, east of Chanta

2200-  
2500mbushes; inner grass-gr.; outer ± clavate  
wh., anthers gr. wh.



- | No.   | Plant Name       | Height                              | Other Notes                                  |
|-------|------------------|-------------------------------------|--|
| 19239 | Castilleja       | 14 2-3'                             | Br. & sep. gr. - <del>pink</del> , red dist. |
| 19240 | Vernonia         | S 5-15', drooping                   | Cor. wh. lobes pi. Pappus wh.                |
| 19241 | Bidens           | S 6-8'                              | Ramp wh., cor. greenish                      |
| 19242 | Melastema        | V herb                              | Pet. gr. wh. (sep. gr. - br. out, when)      |
| 19243 | Passiflora       | V herb twining                      | ←  |
| 19244 | Centropogon      | V woody                             | Cor. pi.                                     |
| 19245 | Lantana          | S 2-6'                              | Fr. black, shiny                             |
| 19246 | Blechnum         | H (rocky crevices)                  |  |
| 19247 | Gouraria         | Herb                                | Cor. gr.                                     |
| 19248 | Cissampelos      | V herb                              | Pet. g. g.                                   |
| 19249 | Solanum          | T 8-12'                             | Cor. wh., anthers y.                         |
| 19250 | Centropogon      | V herb. prostrate                   | Cor. pi, wh. in.                             |
| 19251 | Radicula         | H ± prostrate                       | Pet. pi. wh.                                 |
| 19252 | Grass Melanthera | H                                   |  |
| 19253 | Polypodium       | T 15-25'                            |  |
| 19254 | Muhlenbergia     | V herb, prostrate climbing on rocks | Per. gr. - y.                                |
| 19255 | Centropogon      | V woody                             | Cor. pi., paler in.                          |
| 19256 | Cissus ???       | T 15-20'                            | Ripe fr. red; pet. y-g.                      |
| 19257 | Dicliptera       | S 6-10'                             | Cor. red.                                    |
| 19258 | Diplazium        | Caud. 1-2' erect, stipe 1-1.5'      | fr. 3-5'                                     |
| 19259 | Pteris           | Caud. sub. ± 6" above ground;       |  |
| 19260 | Solanum          | V woody                             | Tr. gr.                                      |
| 19261 | Selaginella      | H prostrate; br elongate            |  |
| 19262 | Acanth.          | S 8-12'                             | Cor. bright red                              |
| 19263 | ?                | S 10-12'                            | Fr. red.                                     |
| 19264 | Pteris           | V woody                             | Per. g. - wh.                                |
| 19265 | Rubiaceae        | S slender (or herb?) 3-4'           | Cor. wh.; fr. red.                           |
| 19266 | Palm             | T 8-10'; trunk 1 in. diam           | Per. wh.   fls at top.                       |
| 19267 | Cyathea          | Caud. 10-20'; stipe 3-3'            | fr. 10-20'; pinnules ± 15 per side           |
| 19268 | Anthurium        | H ep.                               | sp. salmon                                   |
| 19269 | Epideudrum       | H ep.                               | lip. g.                                      |
| 19270 | Pilea            | H succ.                             |  |
| 19271 | Apleurum         | F. ep.                              |  |

Feb. 11	thickets along stream, east of Charta.	2200- 2500 m
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pet. wh.; cor. gr., faintly 1-banded w. pink <sup>inner open</sup> grass-gr.)

Rwand  
Michele

deep woods, western slopes Mt. Peña 2500-  
Blanca 2600 m.  
± 10 pinnae basal  
stipe 6-10'; fr 3-4'

infl. 0.5 to 1 ft. below lvs.

- [illegible]



- 19272 Polypodium  
 19273 (junior.)  
 19274 Polypodium  
 19275 ~~Polypodium~~ Dryopteris  
 19276 Dryopteris  
 19277 Hemiteles  
 19278 Polypodium  
 19279 Elaphoglossum  
 19280 Passiflora  
 19281 Miskania  
 19282 (rub.)  
 19283 Polypodium  
 19284 Polypodium  
 19285  
 19286 Palicourea  
 19287 Erythroxylon  
 19288 (rub.)  
 19289 Anthoceros  
 19290 lichen  
 19291 moss  
 19292 fungus lichen?  
 19293 Brachyotum  
 19294 fungus  
 19295  
 19296 Bauhinia  
 19297 Polypodium  
 19298 orchid  
 19299 Gaultheria  
 19300 Alsophila  
 19301 Veneria  
 19302 Rapanea  
 19303 Alsophila  
 19304 Elaphoglossum

- F. ep.  
 S. 2-3' cor. w.  
 S. 2-3' cor. w. lobes deep p.  
 F. rootstock, bifurcated  
 F. to tree trunk  
 F.  
 F. caudex 6-8' erect  
 F. stipe 1-2' fr. 3-4'  
 F. ep.  
 F. ep. terr.  
 H. V. no fl.  
 S. 2-3' cor. q. w. lobes deep p.  
 S. 5' elong. to sty. light p.  
 S. 6-12' fr. o. y.  
 F. terr.  
 F. terr.  
 S. slender fr. q.  
 S. 15-18' cor. w. at base,  
 S. 2-4' q. above  
 H. terr. per. w.  
 S. 3-4'  
 moist bank  
 on tree  
 " "  
 on turf  
 S. 3-4' cor. t. fil. q. w.  
 S. ant. brown  
 on 19293, leaves  
 T. 15-20'  
 H. V. sep. y. q. at ped. out, pet. y.  
 H. V. ant. q. sty. pale y.  
 F. ep.  
 H. ep.  
 S. 10-15' n. p. fr. n. p.  
 F. caudex subt. or slightly  
 F. above ground erect. st. 4-6'.  
 S. 3-5' cor. t. ant. n. p.  
 S. 10-15' cor. q.  
 F. caudex subt. st. 3-5'  
 fr. 3-4'  
 F. caudex subt.

Feb. 11 deep woods, w. slopes Mit. Peña Blanca 25-2600 3

sparsely wooded slopes Chanta 25-2600

per. dotted in.

fr. 4-6'



19305	Wernmannia	T 10-15'	Tr. g-w.
19306	Muesonia	S 8-10'	Tr. wh.
19307	Galettaria	S 6-10'	Cr. wh.
19308	Hubaudia	S 12-15'	Br. pi. cor. pi. pur wh. dist
19309	Moss	On tree trunk	
19310	Viburnum	S 10-12'	
19311	Escallonia	S 10-15'	Pet. wh.
19312	Hubaudia	S 8-10'	cor. p.
19313	Polygala	H. gran. elon. to 5'	pet. deep. p.
19314	(rub.)	H. 2-3'	br. r.
19315	Salix	trunk 3-4' 1/2-1" di.	
19316	Carlotonia	trunk 3' 2" di. st. 4-5'	
19317	Hymenophyllum	F. on moist bank	cor. w.
19318	(rub.)	H. 2-3'	
19319	Saurauja n. sp.	S 8-12'	pet. w. fil. g. ant. y.
19320	Antennaria	H. terr.	spathe r. pur sepals g. w.
19321	Epidendrum	H. terr. to 6'	sepals g. w. pur. spot. in. column. y. g. lip. y. g. -
19322	Burmannia	H.	per. w.
19323	Asplenium	F.	
19324	(guinev.)	H. 3-5'	cor. y.
19325	Antennaria	H. terr.	spathe g.
19326	Smilax	U. U.	
19327	hepatie	moist banks	
19328	lichen	<del>moist</del> on turps	
19329	moss	dec. log.	
19330	lichen	moist bank.	
19331	"	"	"
19332	"	"	"
19333	"	"	"
19334	"	"	"
19335	"	"	"
19336	hepatie	"	"
19337	"	"	"

Feb. 11 sparsely wooded slopes vic. Ch. 25-2600

dense woods vic. Ch. 25-2600

pur. blotched at base



- 19338 ~~Biophytum~~ Biophytum H. cor. light b.  
 19339 Polypala H. pet. light p.  
 19340 Passiflora capsularis H. V. lvs. q. w.  
 19341 Epidendrum lutea H. per. y. cd. p.  
 19342 Passiflora orbifolia H. V. dec. claus.  
 19343 Hypoxis H. per. y.  
 19344 Calceolaria H. cor. y.  
 19345 Cassia H. ± woody pet. br. y.  
 19346 Hebeana H. 2-3' cor. w.  
 19347 Escobedia H. per. q.  
 19348 Cissampelos H. V. cor. q. w.  
 19349 Cordia S. 6-10' cor. p.  
 19350 Clidemia S. 4-6'  
 19351 Anemina F.  
 19352 camp. H. ray. y.  
 19353 Cyperus H.  
 19354 Eriolabus H. V. cor. q. y.  
 19355 ~~Centrum~~ T. 10-20' cor. q. y. fr. light. r.  
 19356 Citrus T. 10-20' cal. q. w. pet. & fil. w.  
 19357 Indigophera S. 5-8' pet. p. aut. y.  
 19358 Acalypha H. ± woody pet. yellowish  
 19359 ~~acanth~~ (acanth) H. 2-4' fil. r.  
 19360 Piper H. slender cor. w.  
 19361 Acalypha S. 4-12' star w.  
 19362 Verbena S. 8-12' cor. tube q. y, lobes y.  
 19363 Peperomea H. on rocks  
 19364 Peperomea H. terr.  
 19365 Adiantum macrophyllum H. on rocks pet. w. fr. y.  
 19366 (umbel) F. proliferans  
 19367 Cryopteris F. stipe 3-5' caudex subt.  
 19368 Saccoloma F. fr. 2-4' subt. -1'  
 19369 Cardolovica H. stipe 3-5'  
 19370 Pilea H.

Feb. 16 open hillside ~~vic.~~ Bue. & 1000-1200

wooded slopes. between Bue. & El Roble 1200-1500

vic. El Roble ±1500

woods along stream

88801

88801

08801

14801

84801

84801

14801

84801

84801

74801

84801

04801

04801

16801

84801

84801

84801

84801

84801

78801

84801

68801

08801

10801

88801

88801

88801

88801

88801

88801

88801

88801

88801



- 19371 (juv.)  
 19372 *Piper*  
 19373 *Hipleyum*  
 19374 *Hipleyum*  
 19375 *Zectaria*  
 19376 *Passiflora*  
 19377 *Salanum*  
 19378 *Lotaxalis*  
 19379 *Pteris*  
 19380 *Asplenium*  
 19381 *Asplenium*  
 19382 *fungus*  
 19383 *Peperomea*  
 19384 *(rub.) Cordia*  
 19385 *lichen*  
 19386 *Senecio*  
 19387 *Lioclea*  
 19388 *Vernonia*  
 19389 *Salvia* "dominica"  
 19390 *Salvia* " (Hem. <sup>single</sup> <sub>lites</sub>)  
 19391 (rub)  
 19392 *Mimosa*  
 19393 *Polypodium*  
 19394 *Evolvulus*  
 19395 *Conyopteris*  
 19396 *Momordia*  
 19397 *acrid*  
 19398 *Opereculina*  
 19399 *Triunfetta*  
 19400 *Passiflora pubera*  
 19401 *Phenax*  
 19402 *Phoradendron*  
 19403 *Chelonanthus*

H 13' cor. br. o.

S 8-10'

F. caudex sub t.

F.

F.

H. V. no fl.

H 1 1/2 - 2' pet. w. ant. y.

H 1 woody below pet. y.

H 3-4'

F.

F. proflerous

F. on 19361

H. terr

T 12-15'

on rocks

H. V.

W. V.

W. V.

H 2-4'

H 3-5'

S 10-12'

T 12-20'

F.

H. V.

F.

S 5-7'

H. terr

H. V.

S 5-8'

S 3-4'

S slender

S 4-8'

E. S.

H.

cor. light y.

Feb. 16. woods along stream, Cl Roble

± 1500 2

17. thickets

bet. Cl Roble &amp; Tong

1500-1900 2

woods

open hillside  
wood.



- 19404 *Cassia* S. slender pet. y.  
 19405 *Pilea aluminoides* H. 1-3'  
 19406 *Euphorbia* H.  
 19407 *Myriocarpa* T. 12-20' trunk 2-3' diam  
 19408 *Peperomea* H. terr.  
 19409 *Lepidium* H.  
 19410 *Galactia* H. U.  
 19411 *Tasycias* H. bran. elong.  
 19412 *Isolana* H. cor. br. r. lobes yellowish  
 19413 *comp.* H. 2-6' fl. g. y.  
 19414 *Eupatorium* H. 2-4' cor. w.  
 19415 *Cassia* "alcaparra" S. or small T. 8-12'  
 19416 *Salvia occidentalis* H. ± woody ~~2-3'~~ cor. w. prox. b. dent.  
 19417 *Peperomea* H. terr.  
 19418 *Polypodium* F. terr.  
 19419 *comp.* H. U. rays t. cor. o. r.  
 19420 *Passiflora* H. U.  
 19421 (*Rutaceae*) T.?  
 19422 *Epidendrum* H. 4-6' sep. r. lip. y. cal. p. x. at apex  
 19423 *Cestrum* S. 4-6'  
 19424 *Hibiscus* S. 8-10'  
 19425 *Acalypha* S. 6-10'  
 19426 (*Urticaceae*) *Urera* S. 6-10'  
 19427 *Euphorbia* H. 1 1/2 - 2 1/2' pet. w.  
 19428 *Sellaginella* F.  
 19429 *Epidendrum* H. terr. sep. t. lip. cal. reddish light y. all fl. parts g. y.  
 19430 *Stelis* H. per. light y.  
 19431 *orchid* H.  
 19432 *orchid* H. per. light n. p. segments n. striped br. g.  
 19433 *Stelis* H.  
 19434 *Claphoglossum* F. terr.  
 19435 *Thibaudia "guemadera"* S. 4-8' cal. g. w. cor. p. prox. w. dent lobes w. fil. w. ant. p. y.  
 19436 *Claphoglossum* F. terr.

Feb. 17. open hillside bet. El Roble + Tona 1500-1900  
 woods

open hillside  
 woods

at apex open hillside



- 19437 *Centropogon* U. V. cor. lrp.  
 19438 *hepatic* moist banks  
 19439 " " "  
 19440 " " "  
 19441 " " "  
 19442 " " "  
 19443 " " "  
 19444 *lichen* " "  
 19445 " " on rocks  
 19446 *Chrysanthemum* H 2-4' sap w. cor. y.  
 19447 *Cassia* T 8-15' pet. y.  
 19448 *Cobaea* H. V. long cor. greyish p.  
 19449 " T. 10-15' pet. p. ant. y.  
 19450 (clus.) S 12-15' lrp. q.  
 19451 *Prescottia* H. terr.  
 19452 *palum* D. leaves 3-5' fr. o. n.  
 19453 *Adiantum* D. trunks 3-6'  
 19454 *Palicourea* F.  
 19455 *Ucuna* S 2-4' cor. q. w.  
 19456 *Peperomea* S. or small T. pet. w.  
 19457 *Pilea* H. terr.  
 19458 (lab.) H. to 3' per. q. w.  
 19459 *Mapillana* H. succ. cor. p. b.  
 19460 *Thibaudia* H. to 2' per. o. p.  
 19461 *Yerminamia* S 8-12' lrp. cal. q. lobes w.  
 19462 *Schauburgia* S. 15-20' cor. f. new ant. p.  
 19463 *Psachne* T. slender  
 19464 *Pilea* H. terr. sup. deep. p. lrp.  
 19465 *Oxalis* H. 4-8' paler frax. col. w.  
 19466 *comp.* V. herb  
 19467 *comp.* H. up to 5' per. gr. - wh. pet. y.  
 19468 *Solanum* H. succ. long to 4' pet. y.  
 19469 *Mikania* S 10-12' lrp. y.  
 H. V. 5-10' fr. q.  
 S. with cor. w.  
 scar. bay. ~~scar. bay.~~

7. d. 17. thickets bet El Roble  
 + Tona

1500-  
1900

thickets

vic. Tona

1900-  
2100

woods

70101  
80101  
90101  
01101  
11101  
21101  
31101  
41101  
51101  
61101  
71101  
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91101  
02101  
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00101



- 19470 *Picramnia* S. 5-8' pet. & fil. deep. r.  
 19471 *Ichneutes* H.  
 19472 *Peperomia* H. sp.  
 19473 *Asplenium* F. tem.  
 19474 *comp.* S. 15' upper bran. droop. fl. w.  
 19475 *Saurauja* S. 5-8' to ground  
 19476 *Momium* S. 6-10' pet. b.  
 19477 *Eugenia* T. 20-25' pet. w. star y.  
 19478 *(melast.)* H. 2-2½' pet. rich p.  
 19479 *Ficus* S. 8-12'  
 19480 *Saurauja* S. 8-12' pet. & fil. w.  
 19481 *(tilia)* T. 25-30' fr. fil. p. y.  
 19482 *Phenax* S. 3-5'  
 19483 *Inyoptera* F.  
 19484 *Tournefortia* T. 10-12'  
 19485 *Eupatorium* H. 3-4' cor. w.  
 19486 *(malvaceae)* H. coarse pet. b.  
 19487 *(malvaceae)* H. 2-3' woody cor. y.  
 19488 *Alaucoa* H. 2-3' cor. o.  
 19489 *Carex* H.  
 19490 *Suggena* S. slender cor. w. fr. p. per.  
 19491 *Stenonolynchus* S. 12-15' bran. very droop.  
 19492 *Diplazium* H. tem. fl. br. r.  
 19493 *Tournefortia* F.  
 19494 *Maxillaria* S. 6-8'  
 19495 *moss* H. on rocks per. p. o.  
 19496 *lichen* decaying wood  
 19497 *moss* tree trunk  
 19498 *lichen* " "  
 19499 *"* " "  
 19500 *hepatic* " "  
 19501 *"* " "  
 19502 *Bignonia* T. 20-25' cor. rich p. pale w.

Feb. 17. woods

vic. Tong

1900-  
2100

clearing.

woods

thickets



- 19503 *Buddleia* T 12-20' cor. y.  
 19504 *Parosela* S 2-3' branching pet. p. pur. above  
 19505 *Solanum* S 5-8' pet. w. ant. y. dist. bluish oh prox.  
 19506 S 10-12' sep. p. ting. out.  
 19507 *Epidendrum* H terr. sep. H. lip pur. col. q. y.  
 19508 *Passiflora maximilliana* H U. ripe fr. deep. pur.  
 19509 *Salium* H elong. cor. w.  
 19510 *Laurus* H pet. w.  
 19511 *Azadirachta* H cor. cream. y. at throat w. fr. w.  
 19512 *Amma* H fr. q.  
 19513 *Xanthoxalus* S 6-10' fr. br. q.  
 19514 *Trifolium* H pet. w. p. ting. dust. out.  
 19515 *Cordia* S 6-10'  
 19516 *Weinmannia* S 3-5' pet. t. sta. q. w.  
 19517 *Crotalaria* T 12-15'  
 19518 *Cassia* T 10-20' pet. y.  
 19519 *Salvia* H 2-3' cor. br. r. w. at base  
 19520 *Passiflora mixta* H U. corona in 1 series  
 19521 *Echeveria* H cor. w. pur. at center  
 19522 *Solanum* H U. tube blue. ant. y.  
 19523 orchid H ep. sep. g. out. y. q. w.  
 19524 *Solanum* S 6-8' pet. w. ant. y.  
 19525 *Cleome* H 5' pet. y. y.  
 19526 *Cestrum* T 12-20' cor. y.  
 19527 moss dec. log  
 19528 *Lepatic* moss bank  
 19529 " among roots of ep. orchid  
 19530 *Persea* S 3-4' cor. p. w.  
 19531 *Befania* S 1-3' cor. br. r. fl. w.  
 19532 (melast.) H w. sty. r. dust. q. w. prox  
 19533 *Hypocistis* H pet. y. sta ± ad  
 19534 " H pet. y.  
 19535 *Eupatorium* S 5-7' fl. parts w.

Feb. 17. thickets

vic. Tonga

19-2100

open hillside  
thickets  
open hillside

Feb. 18

western slopes  
Par. de Salitruini,  
vic. Tonga

22-2800

thickets  
o. h.  
thick.  
o. h.

3

28-3300



- 19536 *Odentoglossum* H terr. 5. sep. y. br. r. at base  
 19537 comp. S. 6-8' rays y. fl. deep y.  
 19538 *Papaver* H pet. light deep  
 19539 *Epipactis* H terr. per. w.  
 19540 *Peperomia* H ep.  
 19541 *Peperomia* H ep.  
 19542 *Senecio* H. 2-3' fl. light y.  
 19543 lichen tree trunk  
 19544 moss " "  
 19545 lichen on branches, etc  
 19546 moss moist soil  
 19547 *Boueria* H U sep. & pet. o. y. pet. pur. spot. throat in.  
 19548 *Ranunculus* H in water of sep. pale y.  
 19549 ~~*Stellaria*~~ *Eleocharis* F "  
 19550 *Werneria* H. heads y.  
 19551 *Halenia* H cor. w. sep. y. - tipped  
 19552 *Espeletia* H entire rays y. cor. tube pale y.  
 19553 *Castilleja* H plant 6"-3" lobes y.  
 19554 *Seranium* H br. & sep. 9. prob. r. dist.  
 19555 *Elaphoglossum* H cor. g. & y.  
 19556 *Ranunculus* H pet. p.  
 19557 *Peperomia* F terr. sep. y.  
 19558 *Espeletia* H heads dark grey  
 19559 moss H entire indument y. rays y.  
 19560 lichen H 1-5' caudex sub.  
 19561 " soil  
 19562 " "  
 19563 (seroph.) branches, etc  
 19564 *Hypocnemis* H fr. light g.  
 19565 comp. H + w. pet. y.  
 19566 *Werneria* H rays g. w. cor. y.  
 19567 *Lobelia* H heads y.  
 19568 *Malvastrum* H tube b. w. lobes rich b.

- Feb. 18 paramillo western slopes par. de Santurbán, nr. Tana 3500 2  
 3500 2  
 3600 2  
 38-4300  
 paramo de Santurbán  
 19. paramo de Santurbán Norte de Santander 40-4500  
 42-4500  
 4300  
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 10000



- 19569 *Valeriana* H cor. w.  
 19570 *Monarda* S 2-4 pet. rich b.  
 19571 *Diplostegium* H + W ramp w. cor. g.  
 19572 *camp. Buddleia* T 10-20'  
 19573 *Vicia* H V. stem deep bl.  
 19574 *Castilleja* S 1-3' unisp. & leaf light bl.  
 19575 *Vaccinium* S 6"-12" br. & sep. g. prox. & dist.  
 19576 *camp.* S 6"-12" cor. g. y.  
 19577 *Orobanch* T 12-20' cor. w.  
 19578 *grass* W. U. heads y.  
 19579 *Paspalum* H pet. r. p.  
 19580 *Eleocharis* H  
 19581 *Polygala* H pet. deep. p.  
 19582 *Aragoa* S compact cor. w.  
 19583 *Arcytophyllum* H 3-4' round crown. cor. w.  
 19584 *Artemisia* H pro. pet. w.  
 19585 *Seranium* H pet. p.  
 19586 *Halimolobos* H cor. g. spur w. g. tip.  
 19587 *Hypericum* S 12-3' pet. y. stem ± 20  
 19588 *Asaphoglossum* H heads y. g.  
 19589 *Manisuris* S 2-5' pet. p. ant. y.  
 19590 *Weinmannia* T 8-12'  
 19591 *Senecio* S 2-3' heads y.  
 19592 *Jamesonia* F. moist  
 19593 *Jamesonia* F. banks  
 19594 *Hypericum* S ± 1' pet. y. stem 40-50  
 19595 *Rubus* W. U. pet. o. fl. light p.  
 19596 *Melastom* S 4-6' ant. dark g.  
 19597 *Miconia* S 5-7' pet. w. ant. w.  
 19598 *Stex Symplocos* T 12-20' pet. light p.  
 19599 *Mutisia* W. V. bla. lvs.  
 19600 *Euclea* S 4-8' ramp y. prox. br. & dist.  
 19601 *Polypodium* F. ip. cor. light y. ant. y.  
 pet. r. sep. deep p.

Feb. 19. Paramo de Santurban

40-  
4500  
39-  
4200

20. eastern slopes of Santurban  
towards Mutiscua

38-  
3900

open hillside  
paramillo " " " " " "

3650-  
3900

P. cc-1

sta. y. ant. g. wood



- 19602 *Oxalis pubescens* H. pet. x. faintly striped with r. out  
 19603 *Bomarea* H.V. sepp. out, y. ting. w. pet.  
 19604 *Eupatorium* S. 6-8' y. prox. q. dist. fur. dot  
 19605 *Lycopodium* F. sty. p. cor. g. w. lobes  
 19606 comp. H. heads q. y.  
 19607 *Amorpha* F.  
 19608 *Oxalis* H. mud. soil  
 19609 *Elaphoglossum* F.  
 19610 *Gaultheria Erya* ? H. semi-proc.  
 19611 *Urtica* H. 1-2'  
 19612 *Calceolaria* H. 2-3' cor. y.  
 19613 *Asplenium* F. 10-12'  
 19614 *Sphecelle* T. 15-20'  
 19615 *Alnus* T. semi. cor. p.  
 19616 *Gaultheria* H. proc. 1-2' br. r. q. at base  
 19617 *Castilleja* H. cal. q. at base, y.  
 19618 *Bartschia* H. cor. y.  
 19619 *Senecio* S. 4-6' heads  
 19620 *Eupatorium* S. 3-4' compact pale y.  
 19621 *Aragoa* S. 4-6' fl. parts pure w.  
 19622 lichen S. 4-6' cor. w.  
 19623 hepatic tree trunks  
 19624 ulm. moist banks  
 19625 *Conocephalum* decayed wood  
 19626 *Gaultheria* H. cor. light p.  
 19627 *Centropogon* S. 1-2' cor. r.  
 19628 *Salvia* H. 1-2' cal. pur.  
 19629 *Calceolaria* H. 2-3' cor. y.  
 19630 comp. H. bran. elon.  
 19631 *Thibaudia* H. + woody  
 19632 *Lobelia* S. 8-12' cor. r. lobes  
 19633 *Myrtus* H. cor. bright b.  
 19634 *Eupatorium* S. 6-10' buds q.  
 S. or small T. cor. g. w. lobes  
 S. 8-15' sty. w.

7 Feb. 20 woods, paramilla, eastern slope of  
 Paramo de Santurbar,  
 edge of woods towards Mututana  
 open hillside

3650-  
3900

edge of woods  
open hillside

above. cor. deep p.

ed. w.

thickets

vic. Mututana

2900-  
3600

P. cc-3  
P. cc-2



- 19635 (~~scroph.~~) *Calandrinia* H pro.  
 19636 comp. H 2-3' rays bright y.  
 19637 comp. H rays w, cor. y.  
 19638 *Aster* H rays w, cor. y.g.  
 19639 *Stellaria* H V. pet. w.  
 19640 *Arabis* H coarse sep. pur, pet. w.  
 19641 (umbel.) H 2-3' pet. w, fr. g.  
 19642 *Eupatorium* H 5-8' much- cor. & sty. p.  
 19643 *Epipactis* H coarse 4-5' cor. br. b.  
 19644 *Anagallis* H pro. since cor. cream w.  
 19645 *Cuscuta grandiflora* V. sep. 4-7' cor. g. y.  
 19646 *Cestrum* S. cor. w. fr. w.  
 19647 *Amisulcia* H cor. & ting. in.  
 19648 *Jungia* "bara" used for H coarse rays w, cor. w.  
 19649 *Serapium* H 4-6' pet. pale, striped  
 19650 *Uicia* H U. prox. with s.p.  
 19651 *Phytolacca* H stem pur. whit. in  
 19652 *Prunus capuli* T. 30-40' pet. w.  
 19653 *Raphanus* H to 3' pet. rich p.  
 19654 *rub. oleacea* T. 12-15' cor. g. w.  
 19655 *Cassia* T. 10-12' pet. y.  
 19656 *Fuchsia* T. 1' br. in upper 1/2' tr. 3-5" di.  
 19657 *Fuchsia* S. pendent tube & sep. r, pet. pur. r.  
 19658 *Cheilanthes* S. 6-10' tube & sep. w. pet. p. r.  
 19659 *Diaplysalium* "lechugilla" H heads purplish  
 19660 *Gymnocarpis* F.  
 19661 *Amaranthus* "bledo" H  
 19662 *Piper* S. 6-10' pap. g. w. sty. pur.  
 19663 comp. "tavera" H fl. g.  
 19664 *Atroplex* H fl. y. g.  
 19665 *Chenopodium* "baico" H fl. g. w.  
 19666 *Parietaria* "same" H fl. g. w.  
 19667 *Tagetes* "ruda cimarrona" H 6-20" fr. rattles at touch

Feb. 20 open hillside

uc.  
Nuttallia29-  
3600

Keel w.

22 thickets

26-  
2500open hillside  
(used for indigestion)(u. indigestion)  
(baths for ulcers)(u. tropical evening)  
(u. " "  
(u. insect poison)ray g. w.  
cor. y. g.

P. cc-s



- 19668 Solanum "boraja" pet. w. (u. for pneumonia)  
 19669 Tradescantia "calaguala" H. and y. per. deep. p. star w.  
 19670 (myrta) "raian" S. compact  
 19671 Matricaria ~~hede~~ "mangayalla" pet. p.  
 19672 Esodium "alfileres" H. pet. p.  
 19673 Physalis "pedro noche" S. 1-2'  
 19674 Calceolaria H+1' cr. y.  
 19675 Urtica "ortiga" H.  
 19676 Frauseria "altissima" S. 7-10'  
 19677 Urtica "ortiga" H. (use on sheet)  
 19678 ~~grass~~ <sup>it is more real, one of the most</sup> <sup>valuable of medicinal pl.</sup> H. 10-15'  
 19679 Carica T.  
 19680 Myrsotis H. cor. light b.  
 19681 Passiflora mollissima H. U. decer. else.  
 19682 Solanum S. 8-10' cor. w. ant. y.  
 19683 Salvia H. 3-5' cor. br. r.  
 19684 Hypericum H. pet. y. sta.  $\pm$  40  
 19685 Passiflora nuxta H. U. plant length q.  
 19686 Phorodendron E. S. on Uicoma  
 19687 Juncus H. 80-100'  
 19688 Eucalyptus T. 10-12'  
 19689 Piper T. trunk 2" di. ant. y.  
 19690 comp. T. 12-15'  
 19691 Alnus T. 20-30'  
 19692 Salvia H. bran. semi- cor. br. blue  
 19693 Verbesina plant 10-15' app. herbaceous  
 19694 (malpigh.) S. 12-15' throughout  
 19695 comp. U. U. small T. rays light y.  
 19696 Vernonia S. 2-3' bran. pap. cream col.  
 19697 ~~Ranpala~~ <sup>Triglochin</sup> T. 12-15' sep. q. y.  
 19698 Juncus H. on moist soil  
 19699 Cufalonum S. 8-10' fl. parts light p.  
 19700 Passiflora pinnatifida H. U. climber on shrubs

Feb. 22 open hillsides vic. Atitun 26-2800 2  
 (u. for fever etc.)  
 (u. for tropical anemia)

(u. to reduce swelling)

paramo near Atitun 2800  
 o.h. vi. Atitun. 26-2800

23 thickets bet. Atitun & Panajol 27-3000  
 o.h.

thickets

on moist bank  
 clearing  
 o.h.

thickets

o.h.

thickets

p-1 P. p-1

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P. 2. 0-2, 3, 4

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P. 2. 2-4, 5

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P. 2. 6

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- 19701 orchid  
 19702 *Calceolaria crenata*  
 19703 *Calceolaria perfoliata*  
 19704 *Cardamine*  
 19705 *Salvia*  
 19706 *Brachistrium*  
 19707 *Weinmannia*  
 19708 *Liplostegium*  
 19709 *Gaultheria*  
 19710 *Senecio*  
 19711 *Centropogon*  
 19712 *Paspalum myta*  
 19713 *Elaphoglossum*  
 19714 *Miconia*  
 19715 *Conocephalum*  
 19716 lichen  
 19717 orchid  
 19718 *Cerastium*  
 19719 grass  
 19720 orchid *Pleurothallis*  
 19721 *Hieracium*  
 19722 *Gaultheria*  
 19723 *Halenia*  
 19724 *Tofieldia*  
 19725  
 19726 *Roupala*  
 19727 *Hypocnemis*  
 19728 *Ornithoglossum*  
 19729 *Stipa*  
 19730 *Paspalum*  
 19731 *Eupatorium*  
 19732 *Lycopodium*  
 19733 *Bomarea*
- sep. & lip y. brown,  
 col. g. y. cor. y.  
 H. lax  
 H. up to 2' long  
 H. 2-4' cor. y.  
 H. cor. rich p.  
 H. cal. deep pur.  
 H. cor. plum. r.  
 S. or small T. cor. light y.  
 S. 10-15'  
 T. 10-12' trunk 2-3" di. bray. only above  
 S. 10-12' rays w. ant deep pur.  
 S. 2-3' sep. light. br.  
 S. 4-8' br. g. cor. tube pale g.  
 S. 6-8' lobes y. sep. w.  
 W. U. cor. r.  
 H. V.  
 F. 12-20' pet. w. frl. w.  
 T. ant. & sty. light g.  
 moist banks  
 " "  
 H. terr. fr. g.  
 H. lax, subcan. pet. w.  
 H.  
 H. terr.  
 H. 1-3 1/2' heads y.  
 S. 4-6' cor. light p. to w.  
 S. cor. g. spec. w. g. tip.  
 H.  
 H. 20-25' fr. subglobose  
 T. + 1 cm. diam.  
 S. 6-8' cal. cream w.  
 S. slender  
 S. 7-10' pet. y. sta. ± 40.  
 H. 2-2 1/2' pet. g.  
 H.  
 H.  
 H. cor. g. w. lobes & sty.  
 H. light p.  
 F.  
 H. V. sep. a. n. pet. y. reddish  
 dist. ant. pur. dot. in.

- Feb. 23. rocky hillsides bet. Munt.  
 & Pauplana 3000-3200  
 edge of woods  
 moist stream banks  
 edge of woods  
 o. h.  
 edge of woods.  
 rocky banks  
 edge of woods.  
 rocky banks  
 edge of woods  
 o. h.  
 e. w.
- 32-3400
- 1  
2



- 19734 *Fuchsia* S. 3-9' bran. cal. r. prox, p. r. dist.  
 19735 *Salvia* H. dependent pet. r.  
 19736 *Lycopodium* H. twigs at base cal. g. to pur.  
 19737 *Roripala* F. cor. light t, w.  
 19738 *Thibaudia* T. 10-20' S. 6-10' cal. r. to pur. cor. deep r.  
 19739 *Eupatorium* S. 10-12' paler at lobes + in. ant. y. to brown sty. r.  
 19740 *Osteomalip* S. 2-3' long. S. on *Miconia*  
 19741 *Pterodendron* E. S. same as 19714?  
 19742 *Bolanum* T. 8-12' pet. w. cor. w. ant. fr.  
 19743 *Eugenia* T. 15-20' pet. w. fr. pur. black  
 19744 *Pterodendron* E. S. on *Miconia*  
 19745 *Thibaudia Roripala* S. 6-10' fr. p. r.  
 19746 *lichen* dry bank  
 19747 *"* moist bank  
 19748 *"* *"*  
 19749 *moos* *"*  
 19750 *Alchemilla* H. pet. g. w.  
 19751 *Clusia* T. 8-15'  
 19752 *Miconia* T. 10-15' pet. + ant. w.  
 19753 *Syringochium* H. cor. y, 2 cm. diam.  
 19754 *Centropogon* H. 8-10' bran. cor. br. r, lobes c. r.  
 19755 *Castilleja* S. droop. S. 3-5' br. + sep. g. prox, r. dist.  
 19756 *Valeriana* W. V. sep. y. in ant. at margin  
 19757 *Cyrtia* H. woody cal. r. p, lobes g.  
 19758 *Maytenus* T. 15-20' pet. deep b.  
 19759 *Osteomalip* S. 4-5' pet. g. fr. y.  
 19760 *Barteloua* H. pet. w. ant. p.  
 19761 *Polypodium* F. 15-20' sep. cream w.  
 19762 *Roripala* T. 2-2 1/2' sep. + pet. p.  
 19763 *Begonia* H. woody below cor. g. y.  
 19764 *Salvia* H. V.  
 19765 *Lodonia* S. 2-5'  
 19766 *Weinmannia* T. 12-15'

Feb. 23 edge of woods bet. Munt + Pamp.  
 at base

y. to brown sty. r.

o. h.  
 edge of woods

cor. g.

o. h.

e. w.

o. h.

32-  
3408

30-  
3208

25-  
3008



- 19767 *Tillandsia* H. terr. on per seq. p.  
 19768 *Smilax* W.U. fr. o. r.  
 19769 *Croton* S. 6-10' pet. y. w.  
 19770 *Passiflora* H.  
 19771 *Audropogon* H.  
 19772 *Cestrum* T. 12-15' cor. y. g, pink. in.  
 19773 *Rhamnus* T. 15-20' fr. black  
 19774 *Prunellia* T. 20-25' seeds black, shiny.  
 19775 *Passiflora balbreyeri* H. U.  
 19776 *Anacardium* T. 15-20' pet. q. y.  
 19777 *Inga* T. 15-25' sta. w.  
 19778 *Eupatorium* S. 8-12' cor. brown, pur.  
 19779 *Solanum* S. 3-4' lobes sty. p.  
 19780 orchid H. terr. much-bran. fl. pale y.  
 19781 *Libanidia* S. 4-8' up to 2 1/2' high. lob. brown, prox. in.  
 19782 *Aprotus* S. 4-8' cal. g. cor. pale r. prox.  
 19783 *Cyperus* H.  
 19784 *Synnepogon* H. 3-5' cal. + br. q. dark r. prox.  
 19785 *Castilleja* H. 3-4' fr. black  
 19786 *Flaccourt* T. 15-20' fr. black  
 19787 *Prunus* T. 25-40' pet. y.  
 19788 *Osteomalip* S. 6-8' fr. black.  
 19789 *Poly podium* F. ep.  
 19790 *Phorolendron* E. S. on 19786  
 19791 *Mimosa* S. 2-4'  
 19792 *Salvia* H. 1-3' cor. br. blue.  
 19793 *Baccharia* T. 10-12'  
 19794 *Cordia* S. 8-12' cor. green.  
 19795 *Eupatorium* H. cor. g. w.  
 19796 *comp.* W. U. lobes + sty. pink  
 19797 *Weinmannia* S. 3-4' pap. w.  
 19798 *Solanum* S. 6-10' pet. w. ant. p.  
 19799 *Eupatorium* S. 8-15' cor. g. w.

Feb. 23 o. h.  
 27. thickets  
 o. h.

bet. Munt.  
 + Pamp.  
 vic. Pamp.

25-  
 3000  
 23-  
 2400

thickets  
 edge of woods  
 o. h.

o. h. Valley Rio Pamplona n.e. of Pamplona

20-17-1800  
 2500

20-  
 2500



- 19800 *Mammia* S 5-6' pet. br. b.  
 19801 *Passiflora balbreyeri* H. U. on *Lippia*  
 19802 *Phorodendron* E S. on *Lippia*  
 19803 *Eupatorium* H. <sup>woody</sup> cor. q. w. lobes pale p.  
 19804 *Serjania* H. below to 3' stop. pet. w.  
 19805 *Bocconia* W. U. panicle up to 2' l.  
 19806 *Solanum* S 10-20' pet. p.  
 19807 *Cassia* S 6-10' pet. b. stam. y.  
 19808 *Verbena* S 4-6' pet. y.  
 19809 *Weinmannia* S 4-3' rays + sep. y. cor. q. y.  
 19810 *(malpigh.)* S 8-12'  
 19811 *Stem* W. U. bl. parts w.  
 19812 *Panicum* H.  
 19813 *Chaetochloa* H.  
 19814 *Malaxis* H. <sup>3 sep. q. o., midrib r.</sup>  
 19815 *Befaria* H. <sup>2 sep. pink, with 2 r. stripes</sup>  
 19816 *Evolvulus* S 6-10' pet. cor. light y. ant. y.  
 19817 *Begonia* H. U. cor. light y.  
 19818 *(rub.)* 19821 H. stem + woody sep. p. just y.  
 19819 *Begonia* H. or small T. cor. + fil. q. y.  
 19820 *(malpigh.)* S 10-12' ant. w.  
 19821 *Myrcia* H. stem + woody sep. p. just y.  
 19822 *Clusia* W. U. pet. y.  
 19823 *(ant.) Srocea* T 12-20' sta. w. pet. w.  
 19824 *(malpigh.)* T 10-12' pet. w. sta. y. q.  
 19825 *Solanum* S 10-15' sep. q.  
 19826 *Begonia* W. U. pet. y.  
 19827 *Piper* H. U. pet. w. ant. y.  
 19828 *Crastum* H. succ. sep. + pet. br. r.  
 19829 *Alsophilla* H. <sup>± 2'</sup>  
 19830 *Centropogon* S 8-12'  
 19831 *Fuchsia* H. lax pet. w.  
 19832 *Senecio glabra* H. <sup>caud. subt. stipe 3-5'</sup>  
 F. fr. 2-4' cor. r. lobes o.  
 W. U. fl. tube + pet. r.  
 S 6-8' cor. q. y.  
 W. U.

Feb. 27. O. h.  
 thickets  
 o. h.

th.  
 o. h.

th.  
 o. h.

sep. pink, r. dotted

th.  
 o. h.  
 e. w.

n. e. of  
*Pamplona* 20-  
 2500

25-  
 3000  
 ± 3000 m.



- 19833 *Piper*  
 19834 *Leabum*  
 19835 *Cyathea*  
 19836 *Chelonanthus*  
 19837 *Valeriana*  
 19838 *Epipactis*  
 19839 *Centropogon*  
 19840 *Mikania*  
 19841 *Psychotria*  
 19842 *Senecio*  
 19843 *Bomarea rubra*  
 19844 *Eupatorium*  
 19845 *Eupatorium*  
 19846 *Palicourea*  
 19847 *Pilea*  
 19848 *Psychotria*  
 19849 *Passiflora tpecutiflora*  
 19850 *Ilex*  
 19851 *Gesneriaceae*  
 19852 *Struthiopteris*  
 19853 *Orchid*  
 19854 *Gesneriaceae*  
 19855 *Valeriana*  
 19856 *Dryopteris denticulata*  
 19857 *Cyathea*  
 19858 *Polypodium*  
 19859 *Cardosia*  
 19860 *Hymenophyllum*  
 19861 *Hemitelia*  
 19862 *Rhynchospora*  
 19863 moss  
 19864 "  
 19865 "

- S 8-12'  
 H 1' ray y. fl. deep y.  
 F. ~~candel~~ erect 4-8',  
 style 1-2' fr. 3-5'  
 H 2-3' cal. g. l. ting. dist.  
 cor. cream prox, r. dist. lobes p. paler at centre  
 V herb Cor. y-g.  
 H ter Per. wh.  
 V woody Cor. deep red, lobes green.  
 V woody Cor. wh.  
 S 8-12' Br. purplish-gr.  
 V woody Cor. bright y.  
 V herb Seps. deep red; pet. deep red dist., ysh prox.  
 T 12-15' Cor. wh.  
 S 8-12' Cor. wh. to light pi.  
 H 1-2.5' Cor. rich y, lobes paler  
 H ± succ. Plant purplish  
 S 10-12' Fr. only  
 V herb Sterile  
 T 12-20' Pet. wh.  
 H 2-3' Br. red.  
 V stem twining about trunks  
 H 8-10' 3 out. seps. light gr. red dist. striped; hairs within deep purple  
 S 8-10' Cor. red, shining  
 V herb Cor. gr. wh.  
 H Cand. upright 6-8', st. 2-3', fr. 4-6'  
 H whit.  
 H Cand. ~~stem~~ ~~twining~~ high  
 H whit.  
 Cand. 1-2' ± erect, st. 1-2', fr. 3-4'  
 H 2-3'  
 On soil  
 " "  
 " "

Feb. 27. woods

Maracailis o. Orinoco watershed  
 divide between: + 3000  
 Rio La Teja o Rio  
 meduna



- 19866 Moss on trees  
 19867 " " "  
 19868 " " "  
 19869 " (- a. sp. leaf) " "  
 19870 Bomarea v. herb. Out. per. red.  
 19871 Passiflora rugosa v. woody See notes  
 19872 Senecio v. woody Rays y, florets y.  
 19873 Comp. S. small T 10-15' Florets light gr.  
 19874 Tournefortia T 20-25' Cor. tube with silvery hairs, lobes. wh; fr. wh.  
 19875 Comp. S 10-15' Pappus whitish  
 19876 Polypodium at base of trees Cor. orange prox. y. d. it; green apex  
 19877 Begoniaceae? S 3-4'  
 19878 Anethrum H. ter  
 19879 Mercuria T 15-30' Pet. deep purple; anthers wh., very showy tree in deep woods  
 19880 Eupatorium S 2-4' tube pale y. cor. 2-4'  
 19881 T 10-12' pet. & fil. w. anthers y.  
 19882 Inga T 8-12' star w.  
 19883 Jimena H. marshy  
 19884 Carex H. soil  
 19885 ~~meleat~~ (Sal) S slender cor. p.  
 19886 Comp. S 2-5' pap. w.  
 19887 Cibotium S 6-10' caud. erect. 3-10' fr. 3-6' (incl. st.)  
 19888 Monarda S 4-8' pet. b, paler prox  
 19889 sedge H. marshy  
 19890 S 8-12' cor. tube & lobes 9. y.  
 19891 Viola H. ~~pro. on~~ moist soil pet. w.  
 19892 Scroph. H. moist soil. pet. y.  
 19893 Sysynchium H. " "  
 19894 Cyperus H. " "  
 19895 grass H. " "  
 19896 Sysynchium H. " "  
 19897 S 6-10'  
 19898 S 10-18'

Feb. 27 Woods

Divide between Rio La Teja &amp; Rio Mesma + 3000 m.

22801

82801

82801

82801

17801

27801

17801

17801

17801

2500 -

3000 m.

17801

17801

#2

17801

17801

17801

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17801



- 19899 Ronpala  
 19900 (rub.) Melast  
 19901 ~~grass~~  
 19902 (rub.)  
 19903 Boneria  
 19904 Rubus  
 19905 (rub.)  
 19906 Castilleja  
 19907  
 19908 camp.  
 19909 camp.  
 19910 Peperomea  
 19911  
 19912 camp.  
 19913 Eupatorium  
 19914 Tibaudia  
 19915 Polypodium  
 19916 Tillandsia  
 19917  
 19918 hepatic  
 19919 Viola  
 19920 Solanum  
 19921 Centropogon  
 19922 orchid  
 19923 Heteromum  
 19924 Marumia  
 19925 Solanum  
 19926 Peperomea  
 19927 Lycopodium  
 19928 Boneria  
 19929 Trichomanes  
 19930 Hymenophyllum  
 19931 Asplenium

- S. or low T. cor. pale g.  
 S. 10-18' pet. + sta. w.  
 S. 8-15' ~~fr. black.~~  
~~H. up to 6'~~  
 S. 8-15' fr. black.  
 S. V. sep. p. pale in  
 H. V. pet. g. + sta. w.  
 U. V. pet. pale p.  
 S. 8-15' pet. w.  
 I ± woody br. t. sep. g. prox,  
 H. 2-4'  
 T. 10-15'  
 S. 8-15' pap. y. w.  
 H. 1-3'  
 H. ep.  
 S. 8-12'  
 S. 4-8' corolla pale g.  
 S. 2-4' lobes y. pap. w.  
 S. 2-4' corolla pale g.  
 S. 8-10' lobes + sta. w.  
 cal. deep r. cor. br. r.  
 F. ep.  
 E. H. bracts fresh. o.  
 S. 8-15' pet. + sta. w.  
 S.  
 on trees pet. w. fur. streaked  
 H. H. semi-pros. in.  
 S. 10-12'  
 W. U. cor. br. r. lobes o.  
 H. ep.  
 S. 8-15'  
 S. 8-12' pet. br. b.  
 S. 3-6' pet. b.  
 S.  
 E. H.  
 F.  
 H. V. sep. r. pale in  
 H. V. pet. o. r. pale in.  
 F. ep.  
 F. ep.  
 F.

Feb. 28. thickets along stream <sup>dunde</sup> between <sup>25-</sup> 3000m.  
 Rio La Teja & Rio  
 Mesma

x. prox, fur. spot at apex in.

try. dist.

open hillside

the woods

dense woods along stream

with r. stripe in center out

± 3000



- 19932 orchid  
 19933 Polypodium  
 19934 Centropogon  
 19935 comp.  
 19936 Thuidia  
 19937 orchid  
 19938 Cibotium  
 19939 Antennaria  
 19940  
 19941 hepatic  
 19942 moss  
 19943 lichen  
 19944 moss  
 19945 Asplenium  
 19946 orchid  
 19947 hepatic  
 19948 orchid  
 19949 Polystichum  
 19950 grass  
 19951  
 19952 Trichomanes  
 19953 Lycopodium  
 19954  
 19955 Peperomia  
 19956  
 19957  
 19958 (rub.)  
 19959 Brachia  
 19960 orchid  
 19961 comp.  
 19962 Cibotium Cyathea  
 19963 Nibania  
 19964 Antennaria

- F. H. sep. o. r. 2 longest  
 becoming deep r. dist.  
 F. ep.  
 S. 2-4' bran. cor. br. r.  
 S. 3-5' ray p. cor. tube  
 S. 3-5' lobes y.  
 T. 10-20' sep. darker becoming  
 H. ep. sep. darker, streaked with deeper r.  
 F. candel. salt. st. 2-4'  
 F. 2-4'  
 H. 10-20' spathe g.  
 S. 8-12' fr. black.  
 on tree trunks  
 moist soil  
 ep.  
 moist soil  
 F.  
 H. ep. sep. g. w. with nsl.  
 H. ep. sep. darker.  
 on leaves of 19946  
 E. H. sep. p. r.  
 F.  
 H. 3-5'  
 S. 3-5'  
 F. ep.  
 F.  
 T. 13-25'  
 H. ep.  
 H. ep.  
 S. 8-10' cal. g. w.  
 S. 8-12' fr. black  
 E. H. br. o.  
 F. H.  
 S. slender cor. lobes y.  
 S. 8-12'  
 F. candel. 6-8' mch. st.  
 H. U. 3-8' cor. tube g. lobes  
 faintly w.  
 H. 10-20' spathe g.

Feb. 28. dense woods divide between  
 Rio La Jaja & Rio  
 Mesone ±3000'

stages dense wooded valley  
 27-2900'



- 19965 orchid  
 19966 —  
 19967 *Centropogon*  
 19968 *Botrychium*  
 19969 *Pilea*  
 19970 *Saccoloma*  
 19971 *Lycopodium*  
 19972 —  
 19973 *Peperomia*  
 19974 *Asplenium*  
 19975 *Centropogon*  
 19976 —  
 19977 *Centropogon*  
 19978 *Asplenium*  
 19979 *Columnia*  
 19980 *Centropogon*  
 19981 *Begonia*  
 19982 *Columnia*  
 19983 *Lipayanum*  
 19984 *Hymenophyllum*  
 19985 *Polypodium*  
 19986 grass  
 19987 *Rubus*  
 19988 *Asplenium*  
 19989 *Polypodium*  
 19990 grass  
 19991 *Centropogon*  
 19992 *Boronia*  
 19993 *Centropogon*  
 19994 *Solanum*  
 19995 *Peperomia*  
 19996 *Trichomanes*  
 19997 *Polypodium*

- E.H.  
 S 3-6' cor. br. r.  
 H 2-3' cor. pink r.  
 F lobes o.  
 H 2-3'  
 F caudex sub., st. 2-3'  
 F fr. 3-8' pedunc 15-25 ft  
 F fr. (incl. st.) 5-7 ft  
 S 8-12' cor. g. w.  
 H ep.  
 F ep.  
 S 3-5' cor. r, lobes o.  
 S 3-5' cal. + cor. lobes  
 H 2-4' cor. + lobes br. r.  
 H terr. spathe + spad.  
 S 3-4' br. pink, to w.  
 S 3-6' cor. pink r.  
 F lobes o.  
 H sep. g. w.  
 H 2-4' br. light o.  
 N caud. sub. stipe 2-3'  
 F fr. 3-4'  
 F ep.  
 F terr. or ep.  
 H  
 W. V. pet. w.  
 F.  
 F. ep.  
 H  
 W. V. cor. br. r.  
 H. V. seeds o.  
 H 3-5' cor. o.  
 S 4-6' pet. w. ant. y.  
 H terr.  
 F. ep.  
 F. ep.

Feb. 28 densely wooded valley divide between 27-  
 Rio La Teja 2900  
 Rio Mesma

clearing  
 thickets  
 d. w. v.



- 19998 *Henitelia*  
 19999 *Polypodium*  
 20000 orchid  
 20001  
 20002 camp.  
 20003 camp.  
 20004 *Hydrocotyle*  
 20005 *Centropogon*  
 20006 *Piper*  
 20007  
 20008  
 20009 camp.  
 20010 *Tropaeolum*  
 20011 *Solanum*  
 20012 *Miconia*  
 20013  
 20014 lichen  
 20015 hepatic  
 20016 "  
 20017 moss  
 20018 Inga.  
 20019 *Tournefortia*  
 20020  
 20021 *Cestrum*  
 20022 *Passiflora manicata*  
 20023 *Tournefortia*  
 20024 *Jussiaea*  
 20025 *Boueria*  
 20026 *Boueria*  
 20027 *Chelamantibus*  
 20028 *Miconia*  
 20029 *Miconia*  
 20030 *Miconia*

- F. cand. 3-5' erect  
 F. stipe 2-3' fr. 3-5'  
 F. ep.  
 E. H. sep. g. w. streaked  
 12-20'  
 S. 4-6' cor. tube g. y.  
 lobes y.  
 H. ray w. sep. tube  
 H. cor. tube pale g. lobes y.  
 H. sep. 2-3' cor. l. r.  
 S. 4-6'  
 S. 10-15' cal. g. cor. g. y.  
 becoming deep r.  
 S. 4-6' cal. g. cor. deep b.  
 H. 3-4' ray & cor. petals b.  
 cor. pale p. lobes  
 H. V. 2-4' pet. w. anthers y.  
 S. 8-12' pet. g. w.  
 S. droop. pet. w. anthers y.  
 S. bran.  
 on tree trunks  
 - branches  
 tree trunk  
 - decaying wood.  
 T. 15-20'  
 S. 10-15'  
 H. H. pet. & sep. w.  
 T. 10-15' cal. & cor. g. w.  
 H. V. descr. else.  
 S. 8-12' fr. w.  
 S. 6-12' cor. l. r. o.  
 H. V. sep. & pet. deep r.  
 H. 1-2' paler in  
 S. 4-10' cal. g. cor. tube y.  
 S. 8-12' fr. g. dark & br.  
 S. 6-10' pet. l. b.  
 S. 10-12'

Feb. 28 d. w. v.

div. bet.  
Rita Jaya & Rita  
meane

27-2900

30001

30002

30003

30004

30005

30006

30007

30008

30009

30010

30011

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30022

30023

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30028

30029

30030

o. h.

d. w. v.

clearing

d. w. v.

Mar. 1 dense woods Pica-Pica valley  
above Capata 21-2400

2

E

9

8

7

7

7

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1

1







- 20065 — pet. w.  
 20066 comp. pap. w.  
 20067 comp. cor. + lobes w.  
 20068 Solanum pet. w. ant. y.  
 20069 Asplenium  
 20070 Colanum  
 20071 grass  
 20072 comp.  
 20073 Rubus  
 20074 Centropogon  
 20075 Bromelia  
 20076  
 20077 Polypodium  
 20078 sedge  
 20079  
 20080 Salvia  
 20081 Mammia  
 20082 Peperomia  
 20083 —  
 20084 —  
 20085 orchid  
 20086 orchid  
 20087 (rub.)  
 20088 orchid  
 20089 Antrophyum  
 20090 Begonia  
 20091 Antium  
 20092 Peperomia  
 20093 orchid  
 20094 — cucurbit.  
 20095 Rhizophora  
 20096 (rub.)  
 20097 Habenaria
- H. V. 3-7' pet. w.  
 S. 5-8' pap. w.  
 S. 8-12' cor. + lobes w.  
 S. 8-12' pet. w. ant. y.  
 F. 10-15' pet. w. ant. y.  
 H. long. tube q. w. cor. lobes  
 H. elong. + sty. b.  
 W. V. pet. pale p.  
 H. long. cor. + lobes r.  
 H. elong. lobes o.  
 H. terr. fr. q. to o.  
 H. to 10' infl. at base.  
 F. fr. 4-5' l.  
 H. 2-4' pet. o. y.  
 H. 2-4' cor. r.  
 H. 4-6' pet. fr. deep. b.  
 E. H. pet. w. ting. with p. b.  
 H. 2-3' slender cor. tube p. lobes w.  
 T. 8-12' ting. with p.  
 E. H.  
 E. H.  
 S. 8-10'  
 E. H.  
 F. ep.  
 H. 2-4' sep. q. w.  
 H. terr. spathe r. in  
 H. terr. green. r. ant.  
 E. H.  
 E. H. fr. q.  
 W. V. fr. bl.  
 H. ep.  
 S. 8-10'  
 H. terr.

Mar. 3. woods

vic. Toledo. 7-1000



- 20098 *Lupinus* F.  
 20099 *Polypodium* F. ep.  
 20100 *Cyathea* F. cand. erect 2', 3-4" di.  
 20101 *Tillandsia* F. st. 3-4', fr. 6-8'  
 20102 *Peperomia* E. H.  
 20103 *Eupatorium* E. H. cor. 9-11' lobes b.  
 20104 *Rapanea* H. 2-3' T. 10-15'  
 20105 orchid E. H.  
 20106 *Bromelia* F. H. fr. q.  
 20107 *Viburnum* T. 12-20' fr. black  
 20108 *Thibaudia* S. 15-15' bran. cor. r. young lobes y.  
 20109 orchid E. H. fr. q.  
 20110 lichen on trees  
 20111 hep. moist soil  
 20112 " on trees  
 20113 lichen on dec. wood.  
 20114 " on trees  
 20115 hepatic " "  
 20116 moss " dec. wood.  
 20117 lichen tree trunks  
 20118 *Cordia* T. 10-20'  
 20119 *Cuphea* H. slender cor. p. b.  
 20120 comp. H. 3-4' fr. w. pap. w.  
 20121 *Tillandsia* E. H.  
 20122 *Tillandsia* E. H.  
 20123 *Cuscuta* T. 12-20'  
 20124 *Peperomia* E. H.  
 20125 *Cordia* T. 8-12'  
 20126 *Polypodium* F. on rocks  
 20127 *Quercus* F.  
 20128 *Phoradendron* E. S.  
 20129 *Rapanea* T. 8-12'  
 20130 *Acalypha* T. 10-15' sta. r.

Mar 3 woods

vic. Toledo 17-1900

10 pinnas per side.  
below apical spec.

open hillside

thickets along stream  
clearingCul. val, 1350-1600  
600 m above Tol

Pl. 1, 2, 3, 4

open hillside

4. thickets Culaga Valley, 6-10 miles above Toledo

18-2000m



- 20131 *comp.*  
 20132  
 20133 *Eupatorium*  
 20134 *Solanum*  
 20135 *lign.*  
 20136 *Passiflora*  
 20137 *Solanum*  
 20138 *Tournefortia*  
 20139 *comp.*  
 20140 *(rub.) Cinchona*  
 20141 *Cassia*  
 20142 *Miconia*  
 20143 *Centropogon*  
 20144 *Polygala*  
 20145  
 20146 *Cassia*  
 20147 *Cufea*  
 20148 *Castilleja*  
 20149 *Miconia*  
 20150 *Halenia*  
 20151 *Piper*  
 20152 *(Pinitia)*  
 20153 *Cufea*  
 20154 *Solanum*  
 20155 *comp.*  
 20156 *Solanum*  
 20157 *~~Solanum~~ acaule*  
 20158 *Cestrum*  
 20159 *Polypodium*  
 20160 *pass*  
 20161 *Peperomia*  
 20162 *Polypodium*  
 20163 *Antennaria*  
 20164 *orchid*

- S. bran. elong. pap. w.  
 very common.  
 W. U. sep. & cor. y.  
 H. 5-6' ± woody tube. g. w.  
 below lobes b. w.  
 W. U. pet. w. ant. y.  
 fr. o.  
 T. 12-20'  
 H. U. fr. round - 3-4 cm. di.  
 dark g. with g. w. spots  
 S. 5-8' pet. w. tube. with b.  
 S. or small T. sta. y.  
 S. 10-18'  
 H. 2-3' tube pale g.  
 cor. lobes w.  
 T. 10-15' cor. & lobes  
 brownish.  
 S. 8-12'  
 T. 10-15' fr. deep. pur.  
 cor. rich p.  
 W. U. pet. br. b.  
 H. occas. w.  
 T. 10-15' bran. elong.  
 S. 8-12'  
 H. up to 4' cor. tube pale g.  
 2 pet. deep. b.  
 S. 3-4' br. cal. & cor. g. prox.  
 y. dist. rug. red.  
 S. 4-6' pet. w. sta. y.  
 cor. g. w. lobes w.  
 W. U. w. below  
 T. 12-15'  
 T. 15-25'  
 H. 2-5' cal. tube g. becoming r.  
 pet. b.  
 S. 6-8' pet. w. ant. y.  
 ray. y. cor. tube g. x.  
 lobes y.  
 T. 6-12' bran. above, bran. ascend.  
 H. 6-8' pet. r. tube. with y.  
 T. 15-20' fr. black.  
 F. 1-2'  
 fr. 3-5'  
 H. on wet rock  
 E. H.  
 F. ep.  
 E. H. fr. bluish w.  
 E. H.

Mar 4. thickets Culagá valley, Toledo 18-2000m 2  
 4-10 miles above Toledo

striped with r.

woods along stream Culagá valley, nr Tapatá, ± 2100

pet. w. ant. y



- 20165 Inga  
 20166 orchid  
 20167 *Psychanthus*  
 20168 Polystichum  
 20169 Eupatorium  
 20170 Peperomea  
 20171 Asplenium  
 20172 orchid  
 20173 Polypodium  
 20174  
 20175 Tommeffortia  
 20176 moss  
 20177 Bromelia  
 20178 Peperomea  
 20179 Hibiscus  
 20180 Cuscuta  
 20181 Tommeffortia  
 20182 Melastoma  
 20183 Phlox  
 20184 Urtica  
 20185 Alnus  
 20186 Urtica  
 20187 Lauro  
 20188 Pilea  
 20189 Berberis  
 20190 Euphorbia  
 20191 Polypodium  
 20192 Cordia  
 20193 Styx  
 20194 Nicotiana  
 20195 Bromelia  
 20196 Pyropterus  
 20197 Metastoma

- T. 25-30' star w.  
 F. H. sep. pale g.  
 H. sep. pale g.  
 F.  
 H. 4-7' stem sty. &  
 H. 1.5 cm. to base cor. l.  
 E. H.  
 F.  
 H. terr.  
 F. ep.  
 H. V. cal. g. y.  
 S. or small T.  
 S. 12-15'  
 ep.  
 E. H.  
 F. H.  
 S. 8-12' bran. pet. p.  
 S. elong. cor. g. w.  
 U. sep.  
 T. 12-15' fr. w.  
 T. 2-3' cor. g. w. lobes w.  
 H. 2-3' pet. white p.  
 S. 6-10'  
 S. or small T. fr. deep. b.  
 S. 8-15'  
 H. much. fr. pet. o.  
 H. up to 3'  
 T. 10-12' fr. greyish  
 H.  
 H. cal. p. pet. w.  
 T. 15-20' cor. & lobes, be-  
 coming pur.  
 H.  
 F. fr. up to 5' l.  
 T. 8-10' tr. erect, 2" di.  
 T. bran. divaricate Cor. g. w.  
 T. 12-15' pet. w. w. anthers  
 T. 10-12' 3" di. pet. w. sty. & sty. w.  
 T. 10-12' fil. faint. fil. & sty. w.  
 H. terr. pet. fil. & sty. w.  
 F.  
 T. 10-20' cal. r.

Mar. 4. woods along stream Culagá valley  
 mt. Tafatá ±2100

B.

Dense woods Pica-Pica valley, 21-  
 Pica above Tafatá 2400  
 open hillside  
 dense woods

pet. w. long with p.



- 20198 *Licorea*  
 20199 *Antium*  
 20200 *Lamarantaceae*  
 20201 *Salim*  
 20202 *Pilea*  
 20203 *Trinax*  
 20204 (lab.)  
 20205 orchid  
 20206 *Milkenia*  
 20207 *Pilea*  
 20208 *Proteaaceae*  
 20209 *Pteris*  
 20210 *Plagiogyria* *Polypodium highy*  
 20211 *Plantago*  
 20212 *Salanum*  
 20213 *Begonia*  
 20214 *Conoclinium* *Coccoloba*  
 20215 *Peperomia*  
 20216 *Boerhaavia*  
 20217 *Asplenium*  
 20218 *Tropaeolum*  
 20219 *Antium*  
 20220 orchid  
 20221 *Rauaea*  
 20222 *Antium*  
 20223 *Polypodium*  
 20224 *Peperomia*  
 20225 *Milkenia* *in densis?*  
 20226 *Centropogon*  
 20227 *Passiflora*  
 20228 *Palicourea*  
 20229 *Valeriana*  
 20230 *Asplenium*

- H. V.  
 F. H. spathe beaming r.  
 W. V. calt + pet q. w.  
 H. V.  
 H. 40-50' pet + fl. w.  
 T. bran. pro. cor. l.  
 E. H. cor. + sty. bluish.  
 W. V.  
 H. 15-20' fr. 3-4 cm. l.  
 T.  $\pm$  2 cm. di.  
 F. twining up.  
 F. tree trunk  
 H. pet. w. ant. y.  
 H. V. sep. w. long. with g. tp.  
 H. 1-3' ant. y.  
 H. 2-4'  
 H. terr.  
 S. ? (more on Mar. 1?)  
 F. prolixious  
 H. V. cor. r. lobes q.  
 H. V. spathe + spadix r.  
 H. terr. sep. w. long. with g.  
 E. H.  
 F. terr. spadix pale q.  
 F. sep. p. pro.  
 E. H.  
 W. V.  
 W. V. cor. br. r.  
 W. V. no fl.  
 H. V. small T.  
 S. bran. spread.  
 W. V.  
 F.

Mar. ③ dense woods

Pica-Pica valley  
above Tafata21-  
2900

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- 20264 *Lipayanum* F. entire fr. 4-6' l.  
 20265 *Lipayanum* H.  
 20266 sedge H.  
 20267 *Myosotis* F.  
 20268 *Cephaelis* F. *prolifera*  
 20269 *Arturum* H. spathe y.  
 20270 *Begonia* H. br. q.w.  
 20271 orchid F. H.  
 20272 *Lichsonia* F. fr (incl. st.) 5-6'  
 20273 (rub.) S. 8-12' cor. q.w., lobes purish.  
 20274 *Polypodium* F. caudex 1' st. 3-4'  
 20275 *Alseodora* F. erect fr. 3-4'  
 20276 *Alseodora* T. 15-20' diam. fr. o.r.  
 20277 hepatic on banks soaked by water of a hot spring  
 20278 moss partially in water of hot spring  
 20279 " in water of hot spring  
 20280 algae  
 20281 lichen  
 20282 *Ficus* "lechers" sp. 40-5' (fruit edible)  
 20283 *Momonga* S. 8-10' tr. pet. br. b.  
 20284 *Passiflora* S. 1" di. fr. black.  
 20285 *Sippia* T. 12-15'  
 20286 *Tournefortia* S. or small T. cor. q.w.  
 20287 lichen on slender branches  
 20288 orchid *Sepanthes* E.H. ~~orchid~~ *orchid*  
 20289 orchid " sp. q.w.  
 20290 " Seps pink; gr. tinged  
 20291 " Seps light pinkish gr., purpl. striped; lip  
 20292 " Seps. deep purp.  
 20293 " Seps. pale y. dist. pi-purpl. striped  
 20294 " Seps. gr. y. Column reddish pi.  
 20295 " Buds light gr.  
 20296 "

Near B. dense woods Pica-Pica valley above Tapatá 21-2400

open hillside western side of Culagá 21-2200 valley, above Tapatá

edge of woods  
O.H.

woods Seps purp. - pi. dist. greenish prox. + 2300' less. deep purp. beneath.

at apex

gr. - y, pink-striped

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|-------|---|-----------|---|
| 20297 | orclud  | E. H.     | Sep. pi. wh.<br>purple-spotted                                  |
| 20298 | "   |           |   |
| 20299 | "   |           | Sep. gr. y.<br>Lvs transversely red-stippled                    |
| 20300 | "   |           | fls. light gr.<br>Dist. sep. pi., inner                         |
| 20301 | "   |           | & lip green   |
| 20302 | "   |           | Per. wh. prox, purp. dist.<br>deep purp. dist.                  |
| 20303 | "   |           | Sep. greenish, pi. tinged                                       |
| 20304 | "   |           | Sep. deep purp.   |
| 20305 | "   |           | Sep. purplish-red prox.<br>pale y dist.                         |
| 20306 | "   |           |   |
| 20307 | "   |           | Young inf. purplish   |
| 20308 | "   |           |   |
| 20309 | "   |           |   |
| 20310 | "   |           | Dependent from tree<br>trunks, buds light gr.<br>Sep. light gr. |
| 20311 | "   |           |   |
| 20312 | "   |           |   |
| 20313 | "   |           |   |
| 20314 | "   |           |   |
| 20315 | "   |           | Segments deep   |
| 20316 | "   |           |   |
| 20317 | "   |           | Buds gr., faintly   |
| 20318 | "   |           |   |
| 20319 | Lauraceae   | T 10-15'  | Buds gr. wh.  |
| 20320 | Centropogon   | V woody   | Cr. deep red to light red                                       |
| 20321 | Trichomanes   | H epip.   |   |
| 20322 | Xanthosoma  | H epip. o | Spath. wh.  |
| 20323 | Anthurium   | H ter.    | Sp. pi.-red, prox, gr. dist.                                    |
| 20324 | Oreopanax   | H ter.    | Sp. green, $\pm 2'$   |
| 20325 | Anthurium angustifolium   | T 20-25'  |   |
| 20326 | Diplazium   | H epip.   | Spath. gr.  |
| 20327 | <del>Cibola</del><br><del>Thelypodium</del><br><del>Solan</del> | H epip.   |   |
| 20328 | Nibania   | V woody   | peduncles very slender<br>dependent, involucre<br>calyx         |
| 20329 | <del>Eupatorium</del>   | V herb    | Cr. & style pi. wh.   |
| 20330 | Nibania   | V herb    | Cr. " " wh.   |

Mar. 5 woods western side of Culagá, 12300  
valley, about Tapala

red, lustrous

faintly pi.-dotted; lvs. purp.-dotted above.

purplish pi., not dotted.

purpl.-dotted

6

dark 6  
light gr, Corolla light gr.  
open hillside  
woods



- 20330 *Siparuna* S 8-12', stem slender, br. spreading  
 20331 *Piper* S 8-10' young spikes wh.  
 20332 *Psychotria* S 8-12' br. reddish-br.  
 20333 *Senecio* V woody flowers y.  
 20334 *Melastoma* H 2-3' Pet. wh.  
 20335 *Asplenium* H epip.  
 20336 *Peperomia* H epip., rare.  
 20337 *Piper* S 3-5' Spikes wh.  
 20338 *Piper* T 15-20' Spikes drooping  
 20339 *Peperomia* H epip.  
 20340 *Bomarea* V herb Pr. only  
 20341 *Hep.* On logs of *Thibaudia*  
 20342 *Moss* On decayed branches  
 20343 *Lichen* On slender tree trunks  
 20344 *Epipactis* H Per. gr. wh.  
 20345 *Banisia* H up to 2'  
 20346 *Stigmaphyllon* V woody Pr. only  
 20347 *Saurauja* T 12-20' Pet. wh.  
 20348 *Cyperus* H  
 20349 *Castilleja* H Br. & sepals gr. prox.  
 20350 *Piper* S 4-5' red dist.  
 20351 *Pteris* H Stipe ± 4', central pinna ± 3'  
 20352 *Mimulus* H 2-3' Cor. light y, fr. wh.  
 20353 *Centropogon* H 4-5' br. spreading Cor. red  
 20354 *Pleurothallis* H epip. on dead trunks Per. reddish br.  
 20355 *Comp.* V woody Pls. wilted  
 20356 *Echinocystis* V herb Cr. gr.-wh.  
 20357 *Orchid* H epip. Ar. only  
 20358 *Isoloma* H 2-3' Br. gr.-wh. ~~stamens~~  
 20359 *Begonia* H spreading Pet. wh., styles y  
 20360 *Cleome* S 2-4' Pet. bright red  
 20361 *Tropaeolum* V herb Pls. tube red, lobes gr.,  
 20362 *Centropogon* W. J. Pet. deep purple  
 cor. r. lobes paler

Man. to woods above Tapata' Western side of Culagá Valley, ± 2300 m. 000000  
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edge of wood  
 Bet. Tapata' & Loro

2200-  
 2400 m.

marshy soil  
 clearing along stream

wooded banks of stream, Rio Loro ± 2400 m. 000000  
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- 20363 *Stelis*  
 20364 *Eupatorium*  
 20365 *Pilea*  
 20366 *Polystichum*  
 20367 *Peperomia*  
 20368 *Peperomia*  
 20369 *Stelaria*  
 20370 *Pilea*  
 20371 *Cardamine*  
 20372 *Mussaenda*  
 20373 *Asplenium*  
 20374 *Isocoma*  
 20375 *Tobaria*  
 20376 *Centropogon*  
 20377 *Polypodium dimorphum*  
 20378 *Polypodium*  
 20379 *Alonsoa*  
 20380 *Sterax*  
 20381 *Africanus* comp.  
 20382 *Meris mucronata* Griseb.  
 20383 *Cestrum*  
 20384 *Antrophyum*  
 20385 *Lycopodium*  
 20386 *Jurinea*  
 20387 *Lycopodium*  
 20388 *Psychotria*  
 20389 *Banana*  
 20390 *Pilea*  
 20391 *Epilobium*  
 20392 *Loasa*  
 20393 *Palicourea*  
 20394 *Centropogon*  
 20395 *Orthoclytus*

- F. H. Endog.  
 T. 12-15' cor. tube pale g.  
 lobes & sty. firmish.  
 on dry logs  
 F. lax up to terr.  
 H. 3' long  
 A. ep.  
 H. lax pet. w.  
 H. succ.  
 H. up to 3' pet. pale b.  
 H. pap. brist.  
 W. V.  
 F. ep.  
 W. V.  
 S. 5-6'  
 H. 2-3' cor. br. r.  
 F. on rocks  
 F. ep.  
 H. cor. pure w.  
 T. 12-20' cor. & lobes w.  
 p. ting. ant. y.  
 W. V. pap. w.  
 F. up to 4' h. inf. st.  
 T. up to 25' tr. 1.5" di.  
 bran. only near top  
 F. ep.  
 F.  
 W. V. forming liana  
 F. caud. 6" high, erect  
 T. 15-20' 3" di. slender bran.  
 fr. dec. p. pur.  
 H. erect  
 H. succ.  
 H. semi-proc. pet. light p. to w.  
 H. 3-4' pet. w. ant. y.  
 H. stinging  
 S. or small T. cor. fr. y.  
 S. 10-12' cor. br. r.  
 W. V.  
 S. 8-10' (introduced)  
 at Epala.

Mar. 6 wooded banks of stream Rio Loso I 2400

cor. firmish  
 y. ting open woods, near Loso

Mar. 4 edge of woods



- 20396 *Marattia*  
 20397 *Asplenium*  
 20398 *Levillia sapotaceae*  
 20399 ~~*Palicourea*~~ *Sipernia*  
 20400 *Palicourea*  
 20401 *hepatic*  
 20402 *Sellaginella* *silvestris* Asplund  
 det. Somers 1978  
 20403 *Pilea*  
 20404 *Liparis*  
 20405 "Rub."  
 20406 *Polypodium*  
 20407 *Cyathea*  
 20408 *Passiflora*  
 20409 *Palicourea*  
 20410 *Coccoloba*  
 20411 *Dryopteris*  
 20412 *Piper*  
 20413 *Martinezia*  
 20414 *Saccoloma*  
 20415 *Solanum*  
 20416 *Asplenium*  
 20417 *Cestrum*  
 20418 *Centropogon nitida*  
 20419 *Peperomia*  
 20420 *Asplenium*  
 20421 *Myrsineae*  
 20422 *Anthurium*  
 20423 *Brachistia*  
 20424 *Trichomanes*  
 20425 *Palicourea*  
 20426 *Orchid*  
 20427 *Palicourea*  
 20428 *Antrophyum*

- F. st. 3.5' l.  
 F.  
 T 20-25' pet. pale y.  
 S up to 15' sep. lvs. elong.  
 S 10-12' fr. dark g. to pur.  
 on leaves  
 F.  
 H. erect Per. gr. wh.  
 H. ter. Pr. only  
 S 3-4' Cor. light y  
 H. herb  
 Can. 4-20', 6-8" diam. Stipe 5-6',  
 V. herb sterile  
 S 12-15' Pr. dark gr. to purple  
 H 2-3' Cor. wh., fr. bright blue  
 Can. 10" high, stipe 3-3.5', fr. 1.5' 3';  
 S 5-8'  
 Trunk 3' high; fr. orange  
 H Pr. 5' l., ± 1' wide  
 S ± 8' slender Cor. wh., auth. y  
 H. herb.  
 S 6-8' Tube gr., lobes wh.  
 H. herb. Cor. red.  
 H. herb.  
 H. herb, fronds dependent  
 T 15-20', drooping  
 fr. calyx tube wh., pet. rich pi.  
 H. herb.  
 H. erect 3-4', often becoming  
 shrubby  
 H. dependent from tree trunks  
 S slender, 8-12' Cor. wh.  
 H. herb.  
 S 10-15' Br. gr.  
 Pr. bright blue;  
 H. herb.

Mar 7. edge of woods

near Zoo

± 2400

edge of woods  
 woods  
 woods

n.e. of Zoo  
 en. to Heran

fr. 12' to 15', 15 primas to side below apical specimen

6 primas to side below apical specimen

calyx gr., lobes blue



- 20429 *Asplenium* ter.  
H tips rooting  
20430 *Asplenium* H ter.  
20431 *Marchantia* Wet rocks  
20432 Moss On dec. log  
20433 Moss " " "  
20434 Rubiaceae H 2-3' Fr. red, fls. gr.-wh.  
20435 *Eupatorium* T 15-20'; specimens from fallen branch  
20436 *Piper* S 6-8'  
20437 *Claphoglossum* Hepip. in dense clumps on trees  
20438 *Polystichum* H ter.  
20439 *Peperomia* H sub. ter.  
20440 *Diplazium* H ter.  
~~*Asplenium*~~ Hepip.  
20441 *Asplenium* H ter.  
20442 *Peperomia* S 4-6' Spikes wh.  
20443 *Piper* H ter.  
20444 *Dryopteris* H ter.  
20445 *Asplenium* H  
20446 *Sauricula* H Fr. gr.  
20447 *Peperomia* Hepip.  
20448 *Polystichum* H ter.  
20449 *Trichomanes* Hepip.  
20450 Hep. Dependent on tree trunks  
20451 *Acauth.* H 2-3' + w, Cor. deep red  
20452 *Orchid* Hepip. 3-4' high  
20453 *Dryopteris* H 3-4'  
20454 *Orchid* Hepip. out. per. rose, purple-dotted  
20455 Rubiaceae T 10-15'; Cor. wh., pub. light pi.  
20456 *Anthurium* Hepip. Spathe light gr.,  
T small 10-15' Bracts wh.  
20457 *Lauraceae* V herb, prostrate  
20458 *Acauth.* V also on forest floor Sterile  
20459 *Alternanthera* H sub. dependent Heads wh.  
20460 Hep. On *Piper* leaf  
20461 *Psacotria* H ter. Per. light pi. & wh.

Mar. 7 woods n.e. of Laseo, en route to Kleran ±2400m.

sp. dark gr.







- 20495 *Cassia*  
 20496 *Salix*  
 20497 *Gussaea*  
 20498 *Ipomea*  
 20499 *Cestrum*  
 20500 *Calliandra*  
 20501 *Atemnathura*  
 20502 *Tantania*  
 20503 *Lasciasis*  
 20504 *Cinchona*  
 20505 *Inga*  
 20506 *Ocimum*  
 20507 *Lichen*  
 20508 *Ficus*  
 20509 *Baccharis*  
 20510 *Vernonia*  
 20511 *Cordia*  
 20512 *Carex*  
 20513 *Lichen*  
 20514 *Lichen*  
 20515 *Persea*  
 20516 *Fresno*  
 20517 *Noce*  
 20518 *Lichen*  
 20519 *Stuntling*  
 20520 *Miconia*  
 20521 *Rubus*  
 20522 *Calliandra*  
 20523 *Tillandsia*  
 20524 *Inga*  
 20525 *Myrcia*  
 20526 *Orchid*  
 20527 *Myst*

- T small pet. x.  
 10-15' tr 3'di.  
 T 5-8' pet. x.  
 S 5-8' cor. pur. dist.  
 W. prox.  
 S 5-6' cor. q. y.  
 star w.  
 Small T.  
 10-12' H sub-ecan. heads  
 H 2-3' cor. deep pink. pur.  
 6-10' H 2-3' cor. light blue  
 T 12-15' cor. q. y. prox. & lobes  
 15-25' cor. r. at center  
 star w.  
 H Fr. only  
 On dry logs  
 T 12-15' spreading crown  
 S 6-10' elong. br.  
 S 5-12' elong. br.  
 inf. light gr.  
 S 8-12' cor. gr. - wh.  
 H  
 On rocky banks  
 On rocks  
 T 20' tr. 5-7 inches  
 Pet. wh.  
 S 8-12' Per. gr. - wh.  
 On rocks  
 On dry log  
 H 3-4'  
 S 4-7' Buds pi. - wh.  
 W. U. pet. p.  
 H 2-4' star w.  
 E. H.  
 T 15-25'  
 T 12-18'  
 F. H.  
 T 8-20' fr. g.  
 pet. w.

Mar. 8. thickets Culagá valley, 6-10 miles above Toledo 18-2000

- 9 open hillsides, vic. Toledo 1700-1900m.  
 5 woods, western side of Culagá Valley above Tabateca ± 2300m.  
 9 plaza Toledo 1700m  
 11 thickets

open hillside

stream bank

open hillside

Mar. 12

western side of Culagá valley north of Tabateca 1480-1550



- 20528 *Asclepias*  
 20529 *Cobaea*  
 20530 *Calopsis*  
 20531 *Cary.*  
 20532 *Cuphea*  
 20533 *Asclepias*  
 20534 *Cinchona*  
 20535 *Mimosa*  
 20536 *Sapot.*  
 20537 *Strobilanthes*  
 20538 *Inga*  
 20539 *Tropheolum*  
 20540 *Salvia*  
 20541 *Boehmeria*  
 20542 *Solanum*  
 20543 *Cordia*  
 20544 *Panicum*  
 20545 *Phyllanthus*  
 20546 *Solanum*  
 20547 *Passiflora manicata*  
 20548 *Stigmaphyllon*  
 20549 *Eutropogon*  
 20550 *Castilleja*  
 20551 *Eupatorium*  
 20552 *Begonia*  
 20553 *Cissampelos*  
 20554 *Eutropogon*  
 20555 *Morima*  
 20556 *Camp.*  
 20557 *Passiflora kalbreyeri*  
 20558 *Dahlia*  
 20559 *Gentianella*  
 20560 *Lupinus*

- H 2-3' pet. r, ant. o.  
 H U. cor. pur, with paler  
 F H. streaks & paler in  
 S 6-8' ray w, cor. g. w.  
 H 2-4' cor. tube deep pur,  
 paler dist.  
 H U.  
 T 15-20' cor. brownish  
 H 2-3'  
 S 8-12'  
 W. U.  
 T 30-40' star w.  
 H U. cal. tube g. spotted, x. at  
 center, r. lobes  
 H 2-3' pet. y. prox, r. dist  
 cor. br. r.  
 S 6-10'  
 S 8-10';  
 Spreading crown  
 T 12-20' Cor. wh.  
 H  
 Small tree  
 erect stem, fr. at summit; pet. wh., fr. gr.  
 H 2-3' Cor. wh., ant. y.  
 invol. light gr., lvs.  
 darker; sep. pet.  
 V woody  
 V woody  
 V woody  
 H 1-3' stem  
 + woody  
 V woody  
 S up to 10'  
 V herb  
 V woody  
 S 6-10' stem  
 erect, branching above; pet. deep blue  
 H subscandent  
 V ± woody  
 H 2-4'  
 T 20-30'  
 H  
 Fr. brownish-gr.  
 st. deep purple.  
 wing & h. pi. purple

Mar. 12. Open hillside  
 ant. 9. thickets  
 O. H.  
 Western side of  
 Culaga valley,  
 north of Batoca  
 1480-  
 1550

center, r. lobes

th.

Open to

Balsa Valley  
 tributary from west of  
 Rio Culaga

1550-  
 1800 m.

thickets  
 bright red, cover purple

Pappus pi. wh.

Open hillside  
 Batoca  
 Eastern slopes of Paramo del  
 2000-  
 2600 m.







